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SMITHSONIAN INSTITUTION

FIVE-YEAR PROSPECTUS
FY 1986 - FY 1990



SEPTEMBER 17, 1984

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SMITHSONIAN INSTITUTION
FIVE-YEAR PROSPECTUS
FY 1986 - 1990
INTRODUCTION

James Smithson bequeathed the whole of his property "to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." In doing so, he created a charitable trust, through the terms of which the United States would serve as trustees for purposes directed toward the benefit of all mankind. By the Act of July 1, 1836, Congress accepted Smithson's bequest, and pledged the "faith of the United States" to carry out its purposes. In the Act of August 10, 1846, Congress established the Institution in its present form and placed responsibilities for management with a Board of Regents.

The Smithsonian is a unique establishment which is both privately endowed and publicly supported, and whose management is vested in an independent board composed of ex officio federal officials as well as private citizens. This arrangement has made possible the remarkable growth and achievements of the Institution during the thirteen years of its existence. Donations from both the public and private sector have increased its collections and continuing additions to its trust funds have expanded and nourished the Institution's usefulness. Appropriations recommended by successive Administrations and approved by successive Congresses have provided steadily increasing federal support for many of the Smithsonian's far-reaching services to the public. Through the development of the Smithsonian Associates program, the Institution now has a nationwide group of interested supporters who sponsor many of its educational activities across the country, and annually thousands of service hours are provided to the Institution by dedicated volunteers.

The Smithsonian Institution's programs are devoted to public education, research, and service in the arts, sciences, and history. Centered on the Mall in Washington, D.C., the Institution also operates major facilities and activities elsewhere in Washington, across the country, and overseas. It is one of the world's leading research centers and encompasses the world's largest museum complex. Smithsonian collections contain more than 100,000,000 art objects, natural history specimens, and artifacts, a figure based on a recently completed inventory generously supported by Congress. The collections are displayed for the enjoyment and education of visitors and are utilized for research by staff of the Institution and by hundreds of visiting students, scientists, and historians each year. The management, care, and security of its collections and a program of selective acquisition for the collections are basic institutional commitments.

In addition to museum curation and exhibition, the Smithsonian conducts a wide range of other programs in order to carry out its broad goal of increasing and diffusing knowledge about Man, his culture, and his environment. Some of these are joint ventures in cooperation with other institutions, universities, and government agencies in the United States and on

every continent. As an outgrowth of basic scientific research, fundamental data are assembled for use by planners and research workers in other organizations, both government and private. Much of this activity fosters conservation, and can be expected to lead to results that are directly applicable to national needs and goals. Historical research, which enhances knowledge of this nation's growth through studies of technological development, art, and folklife and folklore traditions, also is a major endeavor.

The results of the Institution's research are disseminated to a wide audience through books, monographs, exhibit catalogues, and education pamphlets. Public-oriented programs include exhibits, performances, radio, television, and Smithsonian magazine. In addition to the approximately 25,000,000 visitors annually who visit the Institution's museums, galleries and zoological park, many millions more view Smithsonian traveling exhibitions, which appear throughout the United States and abroad, and the Institution's annual folklife festival.

In the fall of 1977, the Regents and the Secretary established a five-year forward planning process covering all activities of the Institution. This process has proven to be a useful mechanism for management to examine development alternatives and to communicate important results and information to the Institution's Congressional authorizing and appropriations committees, and to other interested constituents. The Five-Year Prospectus, FY 1986-FY 1990 is the seventh in a series of documents resulting from that action.

The process is an annual one and involves the preparation of plans and resource projections by each of the Smithsonian's organizations. The review of these materials by appropriate executive staff members occurs throughout the spring and summer months simultaneously with the assembly of the federal and trust budgets for the forthcoming fiscal year. A draft Prospectus is prepared and submitted to the Regents for initial consideration in September of each year. Following the Regent's approval of the forthcoming budgets in September, and the review in November by the Office of Management and Budget of the Institution's federal budget request, the Prospectus is adjusted and prepared for approval by the Regents at their January meeting. If approved, it is distributed to the Institution's various Congressional committees at about the same time as the request for Congressional appropriations.

The Prospectus represents a summary of the areas that will be given priority and emphasis over the next five years and contains a chapter which describes some of the Institution's longer-range facility and operating objectives, projecting various activities ahead to about FY 2000. The Prospectus should be read in conjunction with another publication, the Smithsonian Institution's Programs and Activities (January 1984), which provides background information on the programs of each of the Institution's operating activities. The content presented here is arranged by the major organization grouping of the Institution and corresponds to the assembly of the FY 1986 budget being presented to the Congress; i.e., Science, History and Art, Public Service, and Museum Programs, with separate sections treating Special Programs, Associate Programs, Business Management Activities, and administrative and facilities development plans. Detailed projections and brief descriptions for the bureaus and offices appear in Appendix I.

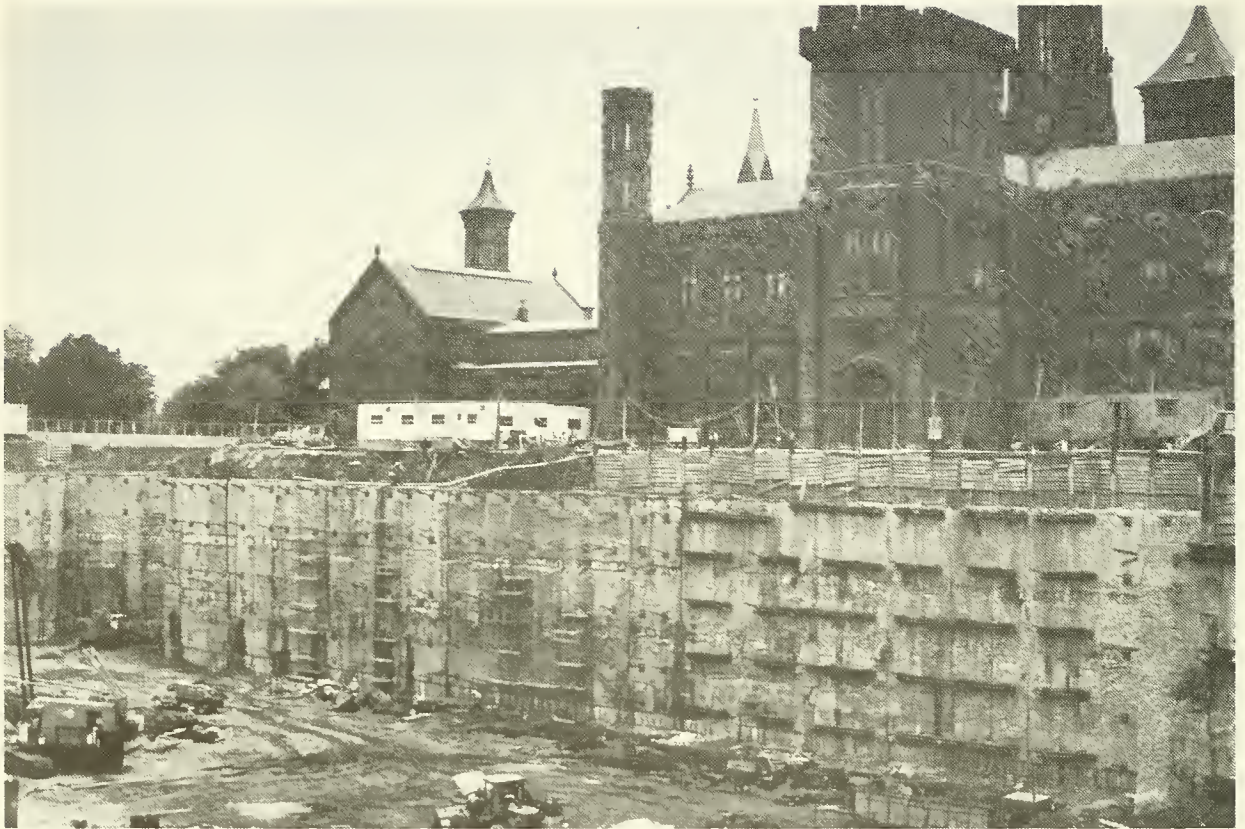
Several items discussed in the text, along with the financial figures for FY 1986, complement the Institution's budget submission to the Office of Management and Budget, and also appear in that document.

The Prospectus reflects needs and opportunities that the Smithsonian has described before. It emphasizes selected aspects of the Institution's work while assuring that others will continue at approximately the present level of activity. Areas of emphasis include collections management, security of collections and other property, automation of records and systems where possible, basic research, exhibition programs, administrative and technical support, the maintenance of current facilities, the completion of most work for the Zoological Park at Rock Creek, the successful establishment of Quadrangle facilities including equipment and operating resources, and the restoration and preservation of landmark facilities such as the General Post Office Building. Also, funds supporting activities in celebration of the Bicentennial of the Constitution and strengthening of Native American Programs are incorporated for future years. The Museum Support Center at Suitland continues to need appropriate operating and equipment purchase resources for the activities to be housed there.

In addition, through its trust operations, the Institution will continue to concentrate on ways to develop quality educational products for the visiting public and Associate programs, sustain growth in endowment reserves, supplement important programs such as collections acquisitions, special exhibitions, fellowships, tours, selected research investigations, conferences, and symposia of timely importance. Unrestricted trust funds and private donations are being used to cover one-half the construction costs of the Quadrangle, and a special reserve has been established to help defray costs associated with selected plant or facility projects.

In a significant way, through the budget process, the Institution has redirected current federal resources to meet high priority needs and has applied unrestricted trust fund income as self-help contributions to maintain the administrative support balance and to strengthen programs of acquisition, research, exhibition, and education. Such efforts will continue to the best of the Institution's ability given the pressures at work on the federal budget to reduce spending while public use of our services remains strong, and given the uncertainty surrounding the continued availability of unrestricted trust income from auxiliary and other activities. Although the present revenues are encouraging, the Institution's management feels only guardedly optimistic about any five-year projection of such income. The public acceptance of the Institution's products or services, such as those performed by the National Associates, is speculative. It is possible, for example, that in the next five years the Magazine which is the most popular of the Associates' activities, may suffer a relative decline. Similarly, purchases in the Institution's shops, sales of books or records, or the sale of other products issued as services through the Associates' activities may decline. As with any such projections, therefore, it seems imperative that appropriate safeguards should be taken against the assumption that the expansion of these activities will continue in an unbroken progressive curve.

The Institution will continue to pursue the following principal objectives over the next five years.



Excavation of the Quadrangle site; photograph taken in mid-July 1984.
Scheduled for completion in 1986.

<u>Objectives</u>	<u>Principal Funding Source(s)</u>
<u>Operations</u>	
1. To open, and operate the Quadrangle including establishment of the major international exhibit, research, collections, and education programs.	Federal Appropriations Nonappropriated Unrestricted Trust Funds and private donations
2. To fully equip the Museum Support Center, and establish as an integral part of operations a collections conservation and conservation training program.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
3. To strengthen museum operations in the research, documentation, and care of the collections through inventories, the future development of new analytical programs, automated security and information retrieval systems, and conservation programs.	Federal Appropriations
4. To improve the level of technical assistance, equipment, and program funds which support collections related and other original research by the Institution's professional staff. Priority is placed on stimulating innovative approaches to research through competition and outside peer evaluation, and through in-residence fellowships for senior and aspiring junior scholars, especially women and minorities.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
5. To develop contemporary exhibitions and exhibition techniques to communicate to the Institution's audiences recent discoveries, important ideas, and new results of scholarship in science, history and art.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
6. To enhance the Institution's activities in national and international cultural and environmental conservation, research and education with emphasis on temperate and tropical biology, and on the conservation and study of endangered species.	Federal Appropriations

- | | |
|--|---|
| 7. To continue to offer the nation an outstanding magazine, and other quality publications on subjects within the Institution's responsibilities; to utilize the latest technologies and methods to provide radio programs, recordings, and television presentations. | Nonappropriated
Unrestricted Trust Funds |
| 8. To strengthen the National Collections for research and exhibitions through the acquisition of important objects and specimens. | Federal Appropriations,
Nonappropriated Unrestricted
Trust Funds, and private
donations. |
| 9. To augment administrative, financial and other support services to meet current and anticipated program needs. Areas of special emphasis include information management, personnel, facilities planning and engineering, security, and library services to meet the total requirements of the Institution; computer and photographic services in connection with improved documentation of the collections; and facility and protection services. Strengthening of equal employment opportunities and activities will receive increased attention over the planning period. | Federal Appropriations
and Nonappropriated
Unrestricted Trust Funds |

Facilities

- | | |
|---|--|
| 1. To develop and equip the Quadrangle (the area bounded by the Smithsonian Institution Building, the Freer Gallery of Art, the Arts and Industries Building, and Independence Avenue) to accommodate the activities of the Center for African, Near Eastern, and Asian cultures. | Federal Appropriations,
Nonappropriated Unrestricted
Funds |
| 2. To acquire and restore the General Post Office Building for public use and enjoyment as a center for the exhibit and study of American art and culture. | Federal Appropriations |
| 3. To pursue the development of animal and public facilities at the Zoological Park in Rock Creek Valley, and to improve the research, conservation, and visitor education facilities at the Zoo's Research and Conservation Center at Front Royal, Virginia. | Federal Appropriations |



General Post Office Building,
view of the F Street Entrance.



General Post Office Building,
view from corner of Seventh and F Streets.

- | | | |
|----|---|------------------------|
| 4. | To repair, upgrade, and restore Smithsonian buildings to keep them in safe and functional condition with special emphasis on the provision of fire detection, containment, and suppression systems, access by handicapped persons, building exteriors, and energy conservation. | Federal Appropriations |
| | | |
| 5. | To provide new and renovated facilities at the Smithsonian's Washington, D.C. and field locations for purposes of facilitating research and educational programs. | Federal Appropriations |

For the most part, the effects of inflation cannot be incorporated realistically into the Institution's resource forecasts for bureau and program operations.¹ Summary Table 1, however, attempts to show the general levels of resources that would materialize assuming legislated pay changes are forthcoming in the range of 4 to 6 percent per year and assuming federal nonpersonnel purchases occur based on price changes for future years as derived from indices supplied by the Office of Management and Budget. Similar patterns are incorporated for trust projections. By FY 1990, resources from all sources required for various operations would increase from FY 1984 levels of approximately \$299,000,000 to about \$490,000,000 and it is expected that more than one-half of this increase will be due to changes in legislated and other pay scales, increases in utilities, rent, postage, communications and other inflationary causes.

Exclusive of legislated pay increases, federal salaries and expenses are projected to increase approximately \$84,000,000. Significant additions are forecast for such items as security and protection, utility costs, necessary pay increases, inflation in nonpay areas, research equipment, equipping and operating the Museum Support Center and the Quadrangle, basic and interpretive research utilizing the collections and scientific and cultural information, improvement to technical and administrative support, and for physical operations and maintenance.

Operations supported with nonappropriated trust funds and federal grants and contracts are expected to increase by approximately \$57,000,000. These increases involve primarily the revenue producing activities, including the Magazine and the Smithsonian Press, where production expenses are predicted to increase considerably. Detailed forecasting of federal grant and contract activities is difficult to achieve, but the Institution expects some increasing support for various operations in future years. Finally, operations funded by restricted trust fund resources are expected to remain approximately stable, largely reflecting a conservative outlook for gift and grant support in future years. This forecast may change over the fiscal year.

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Appendix II presents a summary of areas of operations incorporating inflationary effects into the projections, and converting institutional resource growth into constant FY 1984 dollars.

The trust fund forecasts assume the Institution will make measured progress in increasing its capital reserves (endowments), thus approximately \$3,000,000 to \$4,000,000 a year is incorporated into the projections for this purpose. In addition, trust support for fellowship stipends, special exhibitions, collections acquisition, research, and other educational activities is projected to be slightly higher in future years if economic conditions permit, and if the Institution's auxiliary and revenue-producing activities continue to perform in a satisfactory fashion. Provision was made in FY 1984 to apply an amount of \$2,700,000 towards construction of the Quadrangle. This represented the balance of the approximate \$9,500,000 of institutional trust funds to be used for this purpose as previously approved by the Regents. Federal construction appropriations of \$36,500,000 or one-half of the total estimated construction costs, were received in FY 1983. Recision of \$8,000,000 of this amount occurred during the FY 1984 budget process. An amount of \$8,000,000 is being requested in the FY 1986 budget for equipping the Quadrangle, and emphasis is being given to raising funds from private donors for program support during the planning period.

Major additions to physical facilities are expected over the next five years other than the Quadrangle. The Institution is working toward acquiring the General Post Office Building, now occupied by the International Trade Commission, with expectations of restoring the facility for public and museums uses. In addition, major projects are currently envisioned for the Environmental Research Center near Edgewater, Maryland, the Rock Creek facilities of the Zoological Park, the Freer Gallery, Administrative Services, and the Air and Space Museum. Projects for this latter organization include an initial storage facility for large air and space craft funded from appropriations, and modifications to the present mall building for establishing trust funded food services which will serve the public in a much more suitable fashion than at present. Improvements and contemplated changes to other facilities include the installation of fire detection and suppression systems, the correction of other hazardous conditions and attention to disabled persons access, the provision of renovated and new facilities (such as the Anacostia Neighborhood Museum, the Whipple Observatory, the Tropical Research Institute, and the Environmental Research Center) and a continuing program of repairs and maintenance to all Smithsonian buildings.

Notes on Financial Projections

The tables are designed to show trends in the Institution's future year resource patterns, and to reflect the changes and growth contained in the narrative portions of this report. The FY 1984 figures are estimated end-of-year expenditures and income. FY 1985 figures are those pending approval by Congress, Board of Regents' authorization to expend the FY 1985 appropriation, and Board of Regents' approval of the nonappropriated trust fund portion of the FY 1985 budget.

The FY 1986 figures reflect the consolidated budget assembled for approval by the Board of Regents at its September 17, 1984 meeting. The estimates have been submitted to the Office of Management and Budget. The FY 1986 figures resulted from the Institution's planning and budget reviews which took place during the spring and summer months of 1984. Projects for years FY 1987-1990 were derived from basic materials prepared by the organizations and bureaus of the Institution and then reviewed by the appropriate

members of the Secretary's Executive Committee. The trends represent management's best estimate of federal and trust resources that will be needed to meet program and operating aspirations of the Institution.

Trust fund projections, as mentioned earlier, are particularly vulnerable to fluctuations in the nation's economic climate. They are presented to help explain the expected use of these funds. Trust funds are composed of restricted and unrestricted funds. Unrestricted trust funds (general and special purpose) originate from a variety of sources including income from endowments and current fund investments, parking and food service concessions, sales of Smithsonian products based on designs and objects in the collections, the Resident and National Associate Programs (including Smithsonian magazine), a publication program, and the museum shops. In addition, certain bureaus have their own income-producing activities, such as the Theater and Spacearium operations of the Air and Space Museum. Restricted trust funds include gifts, grants, endowment, and other income designated for specific projects and purposes by the donor. The Freer fund is the largest example in this category, being strictly controlled under the terms of the original bequest for the sole use of the Gallery.

There are three major purposes to which the unrestricted trust funds are applied. First, the expenses of the Associate Programs and revenue-producing activities, such as the Smithsonian magazine and the museum shops, are funded from the earned income of these activities. Second, central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, supply and others, receive trust fund allotments funded almost entirely from the overhead recovery on grants and contracts administered by the Smithsonian and from administrative fees charged to trust-funded activities. General operating funds are also provided to various units for research and other specific purposes. Third, a variety of allocations for important institutional and bureau needs has been made with the approval of the Board of Regents, such as the Collections Acquisitions, Scholarly Studies, and Education Programs; and the Institution's Fellowship programs.

After the three major categories of operating expense financed with unrestricted trust funds are met, the remaining unrestricted income is designated for three purposes. Funds are transferred to the museums and galleries in recognition of their assistance in the planning and carrying out of museum shop, product development, and concession programs. These funds are used for the general operations of the recipient bureaus. A second designation is for improvements to the physical plant or land acquisitions. Finally, funds permitting, the Institution makes an annual transfer to its endowment for the purpose of providing income for rising costs in future years.

The other source of nonappropriated funding, federal grants and contracts, is made available to the Smithsonian by governmental agencies and departments to support specific types of research, educational or other projects which the Smithsonian can undertake as a result of its expertise or its ability to respond quickly to certain kinds of needs.

Tables 1 and 2. Table 1 contains general levels of dollar resources (or revenues) from various sources which the Institution projects will be

necessary for the conduct of its operations. In a summary fashion, it incorporates estimates for inflation and pay increases associated with federal and trust operations of the Institution. Table 2 projects expenses by functional area of operation (Science, History and Art, etc.) along with the application of trust funds to such items as plant improvements; endowments; and special activities such as the Collection Acquisition, Scholarly Studies, and Education Programs.

Tables 3, 3A and 4. All major construction projects are included that are underway or being planned. For some future projects, detailed planning and estimating remain to be done (e.g. base camp facilities at Mt. Hopkins for the Whipple Observatory and storage facilities for the Air and Space Museum) and the amounts as well as the possible sources of funding have not been fully determined.

Table 5. Projections associated with programs and operating activities of units to be located in the Quadrangle, along with some expected maintenance and support costs, are consolidated in Table 5 to provide an overview of the organizational resources involved in that new facility.

Appendix I, Tables 6 through 13. These contain detailed expense projections for the Institution's museums, galleries, and laboratories. For ease of presentation, expenses associated with the various administrative, financial, and support organizations of the Institution are grouped into three categories in Table 13: (1) Central Management Offices, (2) Specialized Administrative and Technical Offices, and (3) Facilities Offices.

Appendix II, Table 14. Presents operating funds for the period FY 1975-FY 1990 in actual and constant 1984 dollars.

SMITHSONIAN INSTITUTION
SOURCE OF OPERATING FUNDS
FY 1984 PROJECTED THROUGH FY 1990

Table 1

SOURCE OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
Federal Salaries and Expenses Plus cumulative effect of legislated pay raises	156,683	170,682	188,425	216,504	224,020	235,586	241,271
Subtotal	—	2,900	11,200	20,300	29,400	38,600	47,900
Nonappropriated Trust Funds	156,683	173,582	199,625	236,804	253,420	274,186	289,171
Unrestricted General							
Investments	2,900	3,000	3,050	3,100	3,150	3,300	3,400
Gifts	25	50	50	50	50	50	50
Auxiliary Activities	113,410	120,730	130,275	139,305	147,675	156,765	166,880
Miscellaneous	45	50	50	50	50	50	50
Subtotal	116,380	123,830	133,425	142,505	150,925	160,165	170,380
Unrestricted Special Purpose							
Investments	619	507	516	520	520	520	520
Gifts	111	120	125	125	125	125	125
Bureau Activities	2,745	3,029	3,133	3,300	3,400	3,500	3,600
Miscellaneous	1,136	1,051	1,166	1,180	1,180	1,180	1,180
Subtotal	4,611	4,707	4,940	5,125	5,225	5,325	5,425
Restricted							
Investments	3,206	3,337	3,617	3,775	3,925	4,075	4,225
Gifts, Grants and Contracts	5,355	8,336	5,952	6,400	6,100	6,000	6,000
Miscellaneous	999	969	1,006	1,050	1,050	1,050	1,050
Subtotal	9,560	12,642	10,575	11,225	11,075	11,125	11,275
Federal Grants and Contracts	15,582	16,445	18,482	26,462	28,169	31,530	17,429
Gross Income	302,816	331,206	367,047	422,121	448,814	482,331	493,680
Less Expenses of Auxiliary and Bureau Activities	(98,057)	(106,490)	(114,827)	(122,566))	(130,217)	(138,783)	(147,129)
Net Funds Provided	204,759	224,716	252,220	299,555	318,597	343,548	346,551

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 PROJECTED THROUGH FY 1990

(\$000)

Table 2 (1)

APPLICATION OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
<u>Science</u>							
.Federal Salaries and Expenses	51,973	55,681	58,590	66,292	69,830	72,087	73,565
.Unrestricted General							
-Program and Administrative*	798	497	445	455	444	469	478
-Auxiliary Activities	—	—	—	—	—	—	—
.Unrestricted Special Purpose							
-Bureau Activities	1,523	1,528	1,549	1,636	1,699	1,768	1,839
-All Other	2,803	2,195	1,633	1,653	1,731	1,823	1,914
.Restricted	2,702	2,831	2,574	2,652	2,942	2,821	2,951
.Federal Grants and Contracts	14,966	15,990	18,175	26,122	27,821	31,174	17,065
Subtotal	74,765	78,722	82,966	98,810	104,467	110,142	97,812
<u>History and Art</u>							
.Federal Salaries and Expenses	25,585	28,132	32,944	38,690	39,897	39,905	40,594
.Unrestricted General							
-Program and Administrative	1,489	1,273	1,264	1,272	1,302	1,325	1,355
-Auxiliary Activities	—	—	—	—	—	—	—
.Unrestricted Special Purpose							
-Bureau Activities	673	723	744	783	805	829	853
-All Other	1,273	951	882	1,058	1,087	1,117	1,148
.Restricted	4,427	5,893	4,857	5,114	5,241	5,419	5,552
.Federal Grants and Contracts	177	50	50	75	75	75	75
Subtotal	33,624	37,022	40,741	46,992	48,407	48,670	49,577
<u>Public Service</u>							
.Federal Salaries and Expenses	1,833	2,007	2,807	2,932	3,002	3,004	3,092
.Unrestricted General							
-Program and Administrative	1,368	1,645	1,884	1,989	2,131	2,286	2,485
-Auxiliary Activities	11,695	12,460	13,045	13,670	14,330	15,020	15,660
.Unrestricted Special Purpose							
-Bureau Activities	26	39	41	47	51	57	62
-All Other	260	110	109	—	—	—	—
.Restricted	111	1,770	1,486	1,800	1,370	1,100	950
.Federal Grants and Contracts	—	—	—	—	—	—	—
Subtotal	15,293	18,031	19,372	20,438	20,884	21,467	22,249
*Net of SMO Overhead Recovery			13				

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 PROJECTED THROUGH FY 1990

Table 2 (2)

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
<u>Museum Programs</u>							
.Federal Salaries and Expenses	9,173	10,671	11,862	15,138	15,954	15,914	16,758
.Unrestricted General	1,126	462	463	439	481	503	516
-Program and Administrative	1,475	1,445	1,650	1,720	1,790	1,865	1,925
-Auxiliary Activities							
.Unrestricted Special Purpose							
-Bureau Activities	51	53	57	65	66	67	68
-All Other	172	18	2	4	5	7	6
.Restricted	2,493	1,322	1,009	1,254	1,029	1,029	1,029
.Federal Grants and Contracts	45	2	—	—	—	—	—
Subtotal	14,535	13,973	15,043	18,620	19,325	19,385	20,302
<u>Special Programs</u>							
.Federal Salaries and Expenses	10,020	12,183	9,293	13,570	7,762	10,064	6,364
.Unrestricted General	763	917	973	1,009	1,041	1,073	1,106
-Program and Administrative	—	—	—	—	—	—	—
-Auxiliary Activities							
.Unrestricted Special Purpose							
-Bureau Activities	7	7	6	4	5	5	5
-All Other	4,249	7,580	7,602	8,162	9,107	9,277	9,977
.Restricted	283	550	633	342	304	315	328
.Federal Grants and Contracts	394	403	257	265	273	281	289
Subtotal	15,716	21,640	18,764	23,352	18,492	21,015	18,069
<u>Associates Programs</u>							
.Federal Salaries and Expenses	—	—	—	—	—	—	—
.Unrestricted General	900	943	996	973	850	905	934
-Program and Administrative	59,670	65,620	70,035	74,605	79,370	84,990	90,505
-Auxiliary Activities							
.Unrestricted Special Purpose							
-Bureau Activities	8	10	10	11	11	12	12
-All Other	132	33	33	33	33	33	33
.Restricted	42	25	26	25	25	25	25
.Federal Grants and Contracts	—	—	—	—	—	—	—
Subtotal	60,752	66,631	71,100	75,647	80,289	85,965	91,509
			14				

SMITHSONIAN INSTITUTION

APPLICATION OF OPERATING FUNDS

FY 1984 PROJECTED THROUGH FY 1990

(\$000)

Table 2 (3)

APPLICATION OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
<u>Business Management</u>							
.Federal Salaries and Expenses	—	—	—	—	—	—	—
.Unrestricted General	—	—	—	—	—	—	—
-Program and Administrative	22,850	24,510	27,595	29,925	31,990	34,065	36,090
-Auxiliary Activities							
.Unrestricted Special Purpose	—	—	—	—	—	—	—
-Bureau Activities	—	—	—	—	—	—	—
-All Other	—	—	—	—	—	—	—
.Restricted	—	—	—	—	—	—	—
.Federal Grants and Contracts	—	—	—	—	—	—	—
Subtotal	22,850	24,510	27,595	29,925	31,990	34,065	36,090
<u>Administrative, Financial and Technical Services</u>							
.Federal Salaries and Expenses	11,779	12,308	12,683	13,461	13,578	13,629	13,721
.Unrestricted General	1,333	936	914	1,394	1,415	1,493	1,520
-Program and Administrative*	80	95	95	100	100	105	110
-Auxiliary Activities	(1)	—	—	—	—	—	—
.Unrestricted Special Purpose	123	543	541	22	21	8	5
-Bureau Activities	138	511	612	105	105	105	105
-All Other	—	—	—	—	—	—	—
.Restricted	—	—	—	—	—	—	—
.Federal Grants and Contracts	—	—	—	—	—	—	—
Subtotal	13,452	14,393	14,845	15,082	15,219	15,340	15,461
<u>Facilities Services</u>							
.Federal Salaries and Expenses	46,320	49,887	55,498	57,954	60,503	63,075	64,169
.Unrestricted General	1,191	1,395	1,529	1,569	1,636	1,746	1,806
-Program and Administrative	—	—	—	—	—	—	—
-Auxiliary Activities	—	—	—	—	—	—	—
.Unrestricted Special Purpose	—	—	—	—	—	—	—
-Bureau Activities	—	—	—	—	—	—	—
-All Other	60	31	30	61	65	69	70
.Restricted	17	1	1	—	—	—	—
.Federal Grants and Contracts	—	—	—	—	—	—	—
Subtotal	47,588	51,314	57,058	59,584	62,204	64,890	66,045
*Net of SI Overhead Recovery			15				

SMITHSONIAN INSTITUTION

APPLICATION OF OPERATING FUNDS

FY 1984 PROJECTED THROUGH FY 1990

(\$000)

Table 2 (4)

APPLICATION OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
<u>Adjustments for Inflation, Pay Requirements, and Grade Reductions</u>							
Federal Salaries and Expenses							
-Necessary Pay	—	—	3,508	4,900	7,600	9,700	12,000
-Grade Reductions	—	(187)	(560)	(933)	(1,306)	(1,492)	(1,492)
-Inflation	—	—	1,800	4,500	7,200	9,700	12,500
-Supplemental	—	2,900	11,200	20,300	29,400	38,600	47,900
Subtotal	—	2,713	15,948	28,767	42,894	56,508	70,908
<u>Institutional Total</u>							
Federal Salaries and Expenses	156,683	173,582	199,625	236,804	253,420	274,186	289,171
-Unrestricted General							
-Program and Administrative	8,968	8,068	8,468	9,100	9,300	9,800	10,200
-Auxiliary Activities	95,770	104,130	112,420	120,020	127,580	136,045	144,290
-Unrestricted Special Purpose							
-Bureau Activities	2,287	2,360	2,407	2,546	2,637	2,738	2,839
-All Other	9,072	11,461	10,832	10,993	12,049	12,334	13,153
Restricted	10,213	12,903	11,198	11,292	11,016	10,814	10,940
Federal Grants and Contracts	15,582	16,445	18,482	26,462	28,169	31,530	17,429
Gross Funds Applied	298,575	328,949	363,432	417,217	444,171	477,447	488,022
<u>Less Expenses of Auxiliary and Bureau Activities</u>							
Net Funds Applied Before Transfers	(98,057)	(106,490)	(114,827)	(122,566)	(130,217)	(138,783)	(147,129)
Federal Salaries and Expenses							
-Unrestricted General	156,683	173,582	199,625	236,804	253,420	274,186	289,171
-Unrestricted Special Purpose	8,968	8,068	8,468	9,100	9,300	9,800	10,200
-Restricted	9,072	11,461	10,832	10,993	12,049	12,334	13,153
-Federal Grants and Contracts	10,213	12,903	11,198	11,292	11,016	10,814	10,940
Net Before Transfers	15,582	16,445	18,482	26,462	28,169	31,530	17,429
Net Before Transfers	200,518	222,459	248,605	294,651	313,954	338,664	340,893

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 PROJECTED THROUGH FY 1990

Table 2 (5)

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
Transfers: Out/(In)	—	—	—	—	—	—	—
.Federal Salaries and Expenses	—	—	—	—	—	—	—
.Current Funds Transfers (Internal)	5,250	8,310	8,815	8,965	10,000	10,250	11,065
-Unrestricted General	(5,250)	(8,310)	(8,815)	(8,965)	(10,000)	(10,250)	(11,065)
-Unrestricted Special Purpose	3,272	322	522	500	500	500	500
.Current Funds to Plant Improvement	—	—	—	—	—	—	—
-Unrestricted General	—	—	—	—	—	—	—
-Unrestricted Special Purpose	—	—	—	—	—	—	—
.Current Funds to Endowment	3,021	3,000	3,000	3,500	3,500	3,500	4,000
-Unrestricted General	16	—	—	—	—	—	—
-Unrestricted Special Purpose	185	126	135	140	145	150	155
-Restricted	—	—	—	—	—	—	—
Total Transfers	6,494	3,448	3,657	4,140	4,145	4,150	4,655
Net Changes in Fund Balance:							
Increase (Decrease)	99	—	200	420	45	70	325
.Unrestricted General	(1,514)	(804)	516	551	539	503	498
.Unrestricted Special Purpose	(838)	(387)	(758)	(207)	(86)	161	180
.Restricted	—	—	—	—	—	—	—
.Federal Grants and Contracts	(2,253)	(1,191)	(42)	764	498	734	1,003
Subtotal	156,683	173,582	199,625	236,804	253,420	274,186	289,171
Net Funds Applied	20,610	19,700	21,005	22,485	23,345	24,120	26,090
.Federal Salaries and Expenses	2,324	2,347	2,533	2,579	2,588	2,587	2,586
.Unrestricted General	9,560	12,642	10,575	11,225	11,075	11,125	11,275
.Unrestricted Special Purpose	15,582	16,445	18,482	26,462	28,169	31,530	17,429
.Restricted	204,759	224,716	252,220	299,555	318,597	343,548	346,551
.Federal Grants and Contracts	—	—	—	—	—	—	—
Net Funds Applied	—	—	—	—	—	—	—

SCIENCE

The science programs of the Institution consist of the Museum of Natural History/Museum of Man, Astrophysical Observatory, Air and Space Museum, Tropical Research Institute, Environmental Research Center, and the Zoological Park. In addition, some of the supporting units that report to the Assistant Secretary for Science include the Office of Educational Research, the International Environmental Science Program, and the Office of Fellowships and Grants. The latter two offices are contained within the Special Programs chapter to provide consistency with the FY 1986 budget submission. In addition to fellowships, the Office of Fellowships and Grants oversees the activities of the Institution's Special Foreign Currency Program.

The Smithsonian is a unique international resource in basic science and provides critical continuity to various kinds of long-term research that is not normally done by universities or other federal agencies. The research activity of Smithsonian scientists is fundamental to the Institution's ability to meet its public obligations. The accuracy and currency of its exhibits and the quality of its public education programs, for example, depend on the research results of its staff. Adequate support for the Institution's scientific research is needed if other elements of the Smithsonian's overall program are to thrive. For example, the value of the Institution's vast scientific collections must be weighed in terms of the information that can be derived from them. The ability to maintain the Smithsonian's preeminent role in various scientific disciplines and to provide enhancement for selected new starts is emphasized in the planning period. The scientific enterprise of the U.S. is largely dependent on fundamental knowledge gathered by organizations such as the Smithsonian to achieve major breakthroughs in science and technology.

Current and Projected Resources

Sources of science support vary markedly from organization to organization. For example, the Marine Station at Link Port, Fort Pierce, Florida, which is administered by the Museum of Natural History, operates solely with restricted trust funds, while the Astrophysical Observatory, because of its unique national and international position as a research leader, has about two-thirds of its dollar and personnel resources associated with federal grants and contracts. The Tropical Research Institute and the Zoological Park, on the other hand, rely extensively on federal appropriations for maintenance of programs.

As is the case with other museums and galleries of the Institution, the Museum of Natural History and the Air and Space Museum conduct their basic exhibit, research, collections, and building services activities primarily with federal appropriations, but at the same time enjoy measured support from restricted or unrestricted trust sources, and from federal grant and contract work based upon their ability to obtain these funds.



This photograph of a dog tick, as seen through the scanning electron microscope, was featured in the exhibition "Exploring Microspace" at the National Museum of Natural History, March 16 - July 15, 1984.



Walter Brown at work, chief of the Museum of Natural History's scanning electron microscope laboratory.

A breakdown of estimated FY 1984 and projected FY 1990 resources available for science operations (before application of overhead recovery) follows:

<u>Source of Funds</u>	<u>FY 1984</u>		<u>Projected FY 1990</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	1,299	\$51,973	1,529	\$73,565
Unrestricted trust	80	7,154	80	7,016
Restricted trust	8	2,702	11	2,951
Federal Grants & Contracts	155	14,966	119	17,065
Total	1,542	\$76,795	1,739	\$100,597

In FY 1984, total resources amounted to approximately \$77,000,000 and 1,542 full-time employees. Total funding consisted of approximately 68 percent federal appropriations, 19 percent federal grants and contracts, and 13 percent nonappropriated unrestricted and restricted trust funds.

Future Year Prospectus

The major goal of the Science programs for the next five years is to maintain and improve the capabilities of the Smithsonian as a scientific institution. This goal will be sought by placing highest priority on increasing knowledge through imaginative and pioneering research in disciplines which the Smithsonian has historically followed. To achieve this goal the Institution is undertaking a major program to upgrade and replace research equipment including computers. The science bureaus have inventoried their equipment and a long-range plan for replacement has been developed with phased implementation to occur over the planning period.

During the next five years the Smithsonian will continue to seek expansion of its scientific staff in order to strengthen its research position as a national leader in science and technology. The Astrophysical Observatory will begin developing its capability in submillimeter interferometry and the Air and Space Museum will seek some added historians of aeronautics and space technology. The Zoo will develop its capacity for research relating to the captive management of animals and the problems of reintroducing zoo-bred animals to the wild. In Panama, the Tropical Research Institute will recruit scientists to strengthen research in Biochemical Evolution, Limnology, Marine Plankton and Soil Ecology. In Edgewater, Maryland, the Environmental Research Center is developing its long-range research program to take advantage of the unique features of its twenty-six hundred acre estuarine research site. A quantitative ecologist will be sought to fill a needed gap. Finally, the Museum of Natural History will be devoting much of its energy in the next five years to moving its collections to the new



During the recent extraordinary El Nino event many of the coral reefs in the Eastern Tropical Pacific died off. Here we see a reef in Panama which is beginning to grow back. The white areas are new heads of living coral growing over the extensive dead and darker areas.



A Smithsonian Tropical Research Institute biologist is shown preparing to drill into a coral reef. The cores obtained from this work will help determine whether the extraordinary die-offs of coral reefs have occurred previously during the last 1000 years.

Museum Support Center in Suitland, Maryland. Major research projects being developed by the Museum's staff include a biological inventory of coastal Panama in connection with a proposed new sea-level canal and a long-term biological survey of the United States.

An increase in the use of computers will occur in the next five years. The Astrophysical Observatory is the largest user of computers for research and they will be upgrading their capabilities. The Air and Space Museum has pioneered in the museum field the use of videodiscs and digital analyses to make their photographic archives almost instantaneously available; this technique is being adapted by other Smithsonian museums in areas of collections management and inventory. The technique is expected to spread to museums throughout the United States and the world.

Increased publication funds are needed to reduce the large backlog of manuscripts, especially at the Museum of Natural History, and will be sought during the next five years. Another important component of the Institution's responsibility to diffuse knowledge is the exhibition program. At the Zoo most of the original Master Plan is expected to be completed during the forthcoming planning period. New exhibits will include invertebrates such as insects and spiders, and a comprehensive one which will cover aquatic animals, including fish. The Natural History Museum will be seeking ways to accelerate its permanent exhibition program, while continuing to mount high quality temporary shows in the Evans Hall Gallery. At the Air and Space Museum (NASM) plans continue to develop a facility at Dulles Airport to exhibit large machines such as the Space Shuttle and the Concorde. Eventually the restoration activities of the NASM Garber Facility at Suitland are planned to move to the new Dulles facility. Two new IMAX films have been commissioned to be developed and shown in NASM's Langley Theater.

Finally, the Office of Educational Research, administered by the Assistant Secretary for Science, has moved to new quarters at the National Zoo and plans modest expansion of its research on how people--particularly children--learn in non-formal educational settings. Planning is now underway for facilities at the Environmental Research Center, Tropical Research Institute, the Astrophysical Observatory (i.e. the Whipple Observatory atop Mount Hopkins, Arizona) and the aforementioned Air and Space Museum storage and exhibit areas at Dulles Airport. During the period FY 1986-FY 1990, it is expected that renovation and new construction will occur at these bureaus to strengthen programs currently underway, and to adequately meet new responsibilities. Additional information on facilities requirements is presented in the Facilities chapter.

Overall levels of Science operating funds are expected to reach levels of about \$100,000,000 and 1,700 staff in FY 1990. Most of the increase is associated with appropriation needs of the Natural History Museum, the Zoological Park, and the Astrophysical Observatory. Availability of restricted and unrestricted trust funds is expected to increase modestly. Future year levels of federal grant and contract work are difficult to project at this time because of the uncertainty surrounding NASA support of the Astrophysical Observatory's research programs but are expected to increase somewhat over current levels. Detailed projections for Science bureaus appear in Appendix I.



The videodisc project at the National Air and Space Museum is providing scholars, educators, researchers, and other members of the public access to the Museum's vast collection of archival aerospace photographs.

HISTORY AND ART

History and Art at the Smithsonian is defined to embrace the following organization units: The Museum of American History, which is primarily concerned with American history and the history of technology; the Museum of American Art, which is the Smithsonian's museum devoted to the history of American art, along with its subsidiary, the Renwick Gallery, which displays decorative arts and crafts; the Portrait Gallery, which studies American biographic history through the various media of portraiture; the Hirshhorn Museum and Sculpture Garden, which is the Smithsonian's museum of modern art; the Center for Asian Art, comprised of the Freer Gallery of Art and the Arthur M. Sackler Gallery of Art, which together cover the broad fields of Near and Far Eastern art; the Cooper-Hewitt Museum, which focuses on design and holds one of the major decorative arts collections in the world; the Archives of American Art, the nation's largest repository of documentary materials pertinent to the study of American art history; the Joseph Henry Papers Project, which edits and publishes the papers of Joseph Henry, the first secretary of the Smithsonian and a leading scientist in the mid-1800's; the Museum of African Art, which deals with traditional art forms of the continent of Africa; the Anacostia Neighborhood Museum, which serves as a cultural resource for the people of Anacostia through research and exhibitions on Black contributions to local and national history; and the Office of the Assistant Secretary for History and Art, which provides overall guidance and coordination.

The resources and programs of the Office of American Studies are also administered by the Assistant Secretary for History and Art, as is the trust funded Collections Acquisition Program. These activities are contained in the Special Programs chapter to provide consistency with the FY 1986 budget submission to the Office of Management and Budget.

Current and Projected Resources

Each of the History and Art museums has its own physical plant, its own distinctive collections, and its own specialized staff, and, more importantly, its own character and sense of purpose. Although the Freer Gallery of Art opened more than 50 years ago, the preponderant activity in History and Art at the Smithsonian has been developed largely over the last twenty years, in most instances following specific enactments by the Congress. The budgets for History and Art activities have grown at a measured pace, and most of the bureaus are now reasonably well funded to carry out at least the basic charge each has been given.

Current funding for History and Art activities consists of a mixture of appropriated federal funds, infrequent federal grants and contracts, non-appropriated restricted trust funds, and allocations of nonappropriated unrestricted trust funds. In FY 1984, resources available to History and Art programs amounted to approximately \$34,000,000 and 772 full-time positions. About 76 percent of the dollar figure and 90 percent of the personnel represent federally appropriated support for basic exhibit, research, education, and administrative activities of the museums and galleries. Most



This expressive portrait of American painter, Mary Cassatt, by her good friend Edgar Degas, was an important acquisition by the National Portrait Gallery and was made possible through grants from the Cafritz Foundation and the Collection Acquisition Program of the Smithsonian.

of the balance consists of resources associated with trust operations, with only a small portion originating in federal grant and contract work. A breakdown of FY 1984 and projected FY 1990 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1984</u>		<u>Projected FY 1990</u>	
	<u>Full-Time Employment</u>	<u>Funds (\$000)</u>	<u>FTE</u>	<u>Funds (\$000)</u>
Federal Salaries & Expenses	695	\$25,585	874	\$40,594
Unrestricted trust	35	3,435	33	3,356
Restricted trust	42	4,427	44	5,552
Federal Grants & Contracts	-	177	-	75
Total	<u>772</u>	<u>\$33,624</u>	<u>951</u>	<u>\$49,577</u>

Unrestricted trust fund support is concentrated primarily in the Cooper-Hewitt Museum, Archives of American Art, and Museum of American History. Restricted trust fund support is largely directed to the operations associated with the Freer Gallery of Art, the Cooper-Hewitt Museum, and the Archives of American Art. Only a minor amount of grant and contract work is present in the Cooper-Hewitt Museum.

Generally, the larger of the History and Art bureaus--the Museum of American History, the Museum of American Art, the Hirshhorn Museum and Sculpture Garden, the Portrait Gallery--are supported predominantly with federal funds. Their exhibition, research, collections management, and building operations comprise their major expenses. Each of these museums, however, has small amounts of trust funds (at most about 10 percent of the total resources) made available by donors for specific purposes, and from proprietary activities (bookstores, museum shops, cafeterias and the like), on their respective premises. These latter funds are used for a variety of program purposes.

The operationally smaller History and Art bureaus--the Freer Gallery of Art, Cooper-Hewitt Museum, Museum of African Art, Archives of American Art--work with more evenly mixed financing. Most of the Freer's principal programs are financed by the income from a restricted endowment fund established by Mr. Freer's Will; federal funds support the costs of protecting and managing the collections and building, and general administration. The Cooper-Hewitt Museum receives an annual allocation of Smithsonian unrestricted trust funds to help support its programs; beginning in 1979, federal funds supported a small portion of the exhibition program as well as the costs of maintaining and protecting the building and collections and a share of administrative costs. In addition, the Cooper-Hewitt Museum raises in excess of a million dollars annually to support its exhibitions and related educational activities. The Museum of African Art raises from \$25,000 to \$50,000 per year from private sources to finance certain of its educational activities and the retirement of real estate mortgages it incur-

red before joining the Smithsonian. The Archives of American Art's Board of Trustees raises between \$500,000 and \$600,000 each year to support more than one-half of the Archives' program.

In addition to this general pattern of fund availability and use, the History and Art units are eligible for allocations from the special trust fund Collections Acquisition, Scholarly Studies, Education and Special Exhibition Programs, and from the Special Foreign Currency Program. They also enjoy the presence of pre- and postdoctoral research fellows selected competitively through the Smithsonian's fellowship awards program and funded with nonappropriated unrestricted trust funds.

Future Year Prospectus

Art. For the next five years the single most comprehensive change in History and Art programming will be occasioned by the Quadrangle development. Affecting both the Museum of African Art and the Sackler Gallery of Art, this major construction project will provide the long-overdue opportunity to present non-Western art to the visiting public in facilities commensurate to the importance of African, Middle Eastern and Asian cultures in the broad spectrum of Man's creative history. Completion of the Quadrangle, scheduled for 1986, continues to be a high priority and program plans for major opening exhibitions and educational activities will be receiving priority attention, along with logistical planning for collections management, security, research programs and all other aspects of museum management. Federal resources for such program development for the Sackler Gallery and the Museum of African Art amount to about \$4,900,000 including approximately 62 new positions by FY 1990. These resources concentrated in exhibition, education, and conservation efforts are in addition to appropriations required for basic building management, security, and utility costs and other programs and support which, by 1990, should total 202 positions and \$5,600,000. Programs and operational resource projections for occupants of the Quadrangle are summarized in Table 5.

Paralleling the opportunity for aesthetic and cultural explication of foreign peoples represented by the Quadrangle, some of the world's richest collections in American art and material culture are found in the museums of the Smithsonian Institution as well. They range from large holdings of decorative arts -- furniture, silver, textiles, porcelain and glass -- to folk arts and the fine arts' including major collections of paintings, sculpture, photographs, prints, and drawings. Supporting the collections are unparalleled resource materials such as the historical documents in the Archives of American Art and the Anacostia Neighborhood Museum, the Museum of American Art's Inventory of American Paintings, research libraries, as well as recognized scholars working in various areas of American art. By virtue of the richness and diversity of the Smithsonian's collections and its documentary and staff resources, the Institution has become, in fact, a major international center for the study of American art and material culture. This center can and should be strengthened by building up its individual parts, including research programs, exhibitions, teacher-training, lectures, and publications, primarily at the Museum of American Art, the Portrait Gallery, the Archives of American Art, and the Anacostia Neighborhood Museum. Toward this objective, the Institution will continue to seek the funds needed to permit balanced program presentations. In

future years, increased support for exhibits production and scholarly positions, as well as for expanded publications, both on collections and for exhibitions, will be requested. Funding will also be requested to enable the bureaus to continue and to expand nationally recognized research data bases in American art and to increase scholarly and public accessibility to such data, as well as to archival material and collections, through the fruits of new developments in computer technology. When the General Post Office Building becomes available to the Institution, it would serve as a major facility for special exhibitions of American art and portraiture--including the important medium of photography--on a scale that cannot now be accommodated, provide space for the utilization, display and presentation of the Archives of American Art, now housed in widely scattered locations, and allow for improved facilities for an expanded educational program in American art and culture, involving classrooms, seminar rooms and a 300 or more seat auditorium for public programs.

History. An equally central focus for the Institution's exposition of American culture is the Museum of American History. Building on recent improvements in collections management, inventory, conservation and storage programs, and energized in its public aspect by new major exhibitions, the Museum will be very active in all aspects of its programming during this five-year period with special emphasis on the management of collections and the reinstallation of permanent exhibits. A ten year exhibition plan, formulated early in 1982, points the way to presenting social history in addition to the history of technology; achieving a more ordered spatial layout; and providing improved orientation for the public through signage, labels, and other educational techniques. Over the next five years, the Museum will move ahead on reinstalling its permanent exhibition halls. By FY 1986, Engines of Change: The Industrial Evolution in America will have opened. This exhibition examines the forces behind the transfer of industrial technologies from England to America. In addition, construction will have begun on The Constitution as a Living Document, an exhibit celebrating the bicentennial of the signing of the United States Constitution. Other exhibits planned include: Graphic Arts: 100 Years, a retrospective exhibit about the Division of Graphic Arts; Domestic Interiors in Eighteenth Century America, which depicts the significant changes in the ways Americans furnished their homes during the 1700's; and Bridges of Niagara, which presents the history of the nearly 20 bridges that have been built since 1848 at Niagara Falls. Reinforcing its exhibit plan, the Museum will continue its commitment to public education through lively tours and educational activities, concerts and recitals, and regular and special events.

By the end of FY 1986, the refinement of inventory records and the photographic recording of especially valuable objects will be completed. To improve automated records control, the Museum will need to add additional computer hardware and increase the system's main memory, storage capacity, and software to support effectively the needs of the Museum staff and programs. Along with these collection initiatives, the Museum will continue to address its long-term storage and conservation needs by upgrading its existing object storage equipment or purchasing new equipment when necessary.

In addition to these improvements in general collections programs, the Museum is bringing the extensive collections of graphic and archival materials, distributed throughout curatorial divisions, under more systematic



The Anacostia Neighborhood Museum's Black Wings exhibition, featured C.D. "Lucky" Lester, lecturing local school children about his remarkable victory day on July 18, 1944 which earned him the distinguished flying cross.

care and control. The appointment of an archivist, a small archives staff, and the restoration of curatorships will benefit the Museum in substantial ways throughout future years. This core staff and facility would also be of key service in helping to integrate into the Museum the photographic and archival collections of the International Museum of Photography at George Eastman House. Substantial new federal funds will be required once the Institution and Eastman House reach formal agreement on such a transfer. As the timing of this development is not yet clear, the tables in the Appendix have not been revised to provide for this collection. Early estimates call for approximately \$3 million the first year and \$1,500,000 to 2,000,000 annually thereafter.

Two other significant developments may reach fruition over the planning period for the Museum of American History. The first would involve a cooperative agreement between the U.S. Postal Service and the Institution under which the Museum would be provided space at the Main Post Office building just north of Union Station in Washington, D.C. in which to care for and display the Museum's postal history collections. The second involves the potential gift of some 40,000 historic U.S. Patent Office models from the 1800's plus a multimillion dollar grant to restore and exhibit them. Both these possibilities would increase the expense figures for the Museum in the tables in Appendix I.

All these developments within History and Art stand to benefit as well the Anacostia Neighborhood Museum's programs, as that Museum enters an era of closer cooperation with the Smithsonian's Mall bureaus. Beginning in FY 1985 with a comprehensive survey of collections at the National Museum of American History to identify those with significant Black American relevance, and extending through a master plan of invigorated exhibitions and educational programs at its new consolidated Fort Stanton facility, the Anacostia Neighborhood Museum will be seeking a stronger role in its community as an innovative educational force and planning for its further development for the 1990's and beyond.

Complementing these central efforts, each History and Art unit will be seeking to maintain high performance in all program areas, devoting special attention to selected high priority initiatives. For example, over the next several years, every History and Art bureau will continue to emphasize improved management of collections, from computerization of the records at the Museum of American History, Cooper-Hewitt, and the Archives of American Art, to the production of major exhibitions at the Hirshhorn Museum and Sculpture Garden based on foreign loans of modern art. The Archives of American Art will intensify efforts to preserve its photographic collection as well as 2,500 valuable oral histories. Additional conservation capability will be added to the Hirshhorn Museum and Sculpture Garden, the Museum of American Art, and the Portrait Gallery; and the Museum of American History will oversee movement of appropriate collections to the Museum Support Center. The Joseph Henry Papers staff will begin the phased development of the Joseph Henry Institute for the History of Science in American Life; and the Anacostia Neighborhood Museum will continue to encourage collaborative endeavors with other Smithsonian museums. Finally, October 12, 1992 will mark the 500th Anniversary of the voyage and discovery of Christopher Columbus. To commemorate this significant event, the institution will be planning a series of symposia and exhibitions that will

recognize and commend the governments and people of Spain and Italy for their historic role and contributions to those voyages. Tentative planning for the Quincentennial will begin during this five-year period and would provide opportunities to explore the historical period of America's beginning and the diverse cultural heritages of individual regions of the land, as well as an opportunity to improve our collections, particularly in American history.

To meet the goals outlined for the next five years, it will be necessary throughout History and Art to add staff positions primarily in collections management, conservation, exhibitions and education. To this end, budgetary adjustments within bases will be made and some new resources, both federal and trust, will be sought, as detailed in the appendix.

Other Programs. Other priorities within History and Art through FY 1990 are largely related to improving physical facilities, including the Museum of American History's objects storage facility at Silver Hill and relocation of the Archives of American Art's New York office. Construction of an annex to the Anacostia Neighborhood Museum exhibits laboratory along with a more intense review and consideration of long-term facility needs of the museum will take place, particularly with regard to possible sites and other factors related to the future growth of the Poplar Point area in the city of Anacostia. Below grade development of the Freer Gallery of Art's courtyard would do much to capture valuable additional space, as will remodeling the Freer's lower level to accommodate the physical connection with the Quadrangle and subsequent refurbishment of Freer staff and exhibit space.

Extensive renovation of the Old General Post Office Building will be required for the programs of the Museum of American Art, Portrait Gallery, and the Archives of American Art. The growing collections and public responsibilities of these bureaus have heavily taxed their recent building and their continued vitality is dependent on the availability of additional space for exhibition, public programming and scholarly purposes. While not included in the resource projections of these bureaus, additional associated program and support costs are estimated to be about \$4,900,000 annually, plus about \$1,300,000 for moving and equipment related to programs.

The Cooper-Hewitt Museum will continue to seek donors to support renovation of the Miller House which adjoins the Carnegie Mansion and is part of the Cooper-Hewitt Museum in New York. This project is essential to provide galleries for temporary exhibitions as well as for exhibition of the permanent collection, expanded collection storage, educational facilities and office space. In addition, completion of facade repairs to the Renwick Gallery is a high priority for this period. These various construction and renovation efforts represent by far the largest need for direct new funding on the part of History and Art bureaus of the Smithsonian. Additional information is contained in the Facilities chapter and the Beyond 1990 chapter of this document.

History and Art resources are projected to increase to about \$50,000,000 and 951 staff in FY 1990. Most of the increase is associated with appropriation needs of the Sackler Gallery, Museum of African Art, Cooper-Hewitt Museum, Hirshhorn Museum and Sculpture Garden, Museum of

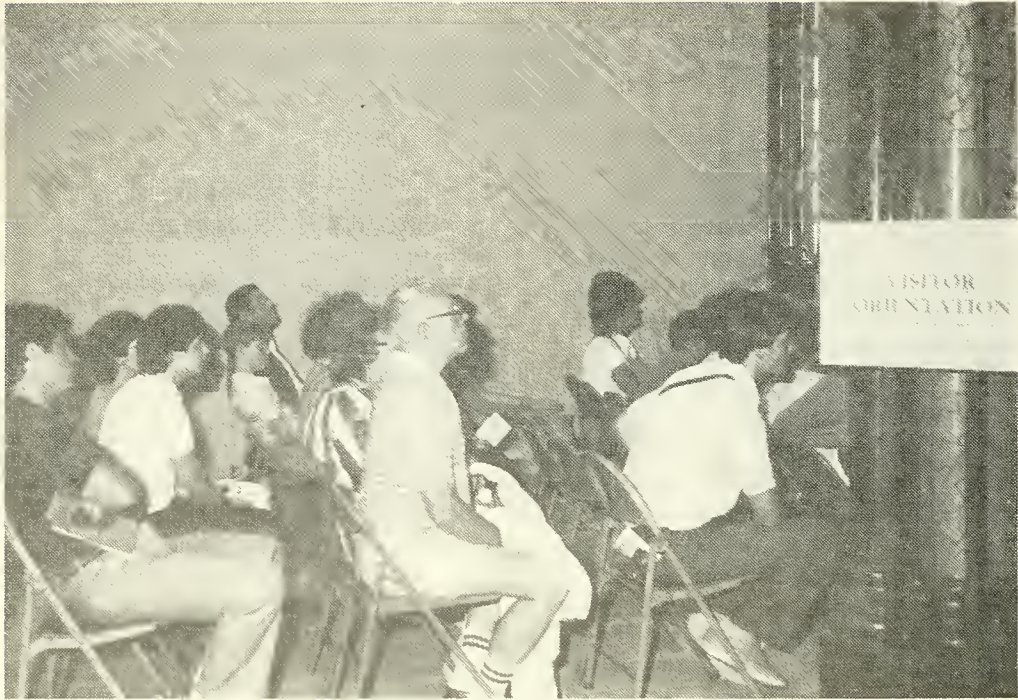
American History, Museum of American Art, the Portrait Gallery and the Archives of American Art. Restricted and unrestricted expenses are expected to increase to about the \$9,000,000 level, and grant and contract activity is expected to be less than \$100,000. Detailed projections for History and Art bureaus are contained in Appendix I.

PUBLIC SERVICE

The Public Service programs are the central focus for the Institution's "diffusion of knowledge" activities. These are: Smithsonian Magazine, contained within the Associates Program chapter because of the general support the Magazine provides to many programs of the Institution and because it is viewed as a major benefit to Associates; Smithsonian Institution Press, including the University Press publications, popular books marketed through direct mail, and the Smithsonian Recordings Program; Office of Elementary and Secondary Education, contained within the Special Programs chapter to provide consistency with the FY 1986 budget presentation; Visitor Information and Associates' Reception Center; the Office of Telecommunications; the Office of Smithsonian Symposia and Seminars, and the Office of Folklife Programs. The latter two offices also are incorporated within the Special Programs chapter. The Assistant Secretary for Public Service also is responsible for the Quadrangle's International Center. In addition to their outreach activities, the Office of Smithsonian Symposia and Seminars and the Office of Folklife Programs carry out research activities. The vigorous growth of Smithsonian outreach trust funded programs can be attributed largely to the success of the Magazine. Through the application of trust funds generated by the Magazine and other revenue producing activities, a variety of valuable conferences, publications, and other projects have been made available in recent years to the public. While enriching the kinds of services provided, the Institution at the same time has been able to reduce the requirements for federal appropriations.

Current and Projected Resources

Resources in FY 1984 devoted to Public Service activities amounted to about \$15,000,000 and 104 full-time employees. Total funding in FY 1984 consisted of approximately 12 percent federal appropriations and 88 percent nonappropriated unrestricted trust funds. The largest amount of support for Public Service programs comes from the Institution's trust operations, and unrestricted trust fund support is, for the most part, concentrated in the expenses of the Smithsonian Press which derives these resources from the sale of trust funded books and records, royalties and special publishing services. These funds support about one-half of the Press' staff and also provide for the necessary services required to develop, market, warehouse, and distribute records and scholarly and general interest books, which are published in connection with the Institution's research, collections, exhibitions, and other programs. Federal appropriations largely support the publication of the basic technical and scientific series distributed by the Government Printing Office, other publications and conferences, international liaison functions, and a substantial portion of the staff and operations of the Institution's centralized film and television operations. The Visitor Information and Associates Reception Center is operated primarily with trust funds, but some additional appropriated resources will be required beginning in FY 1986. Restricted purpose funds are occasionally obtained for support of special activities sponsored by various units; for example, these funds support certain programs of the annual Folklife



Participants in the Visitor Information and Associates' Reception Center's 9:30 a.m. orientation session get a head start in planning their day at the Smithsonian.



The Visitor Information and Associates' Reception Center's telephone information service responds to public inquiries seven days a week, totaling over 320,000 calls annually.

Festival on the Mall and are expected to provide the resources to permit the International Center to equip its theatre and produce a series of films on natural and cultural conservation concerns.

A breakdown of FY 1984 and projected FY 1990 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1984</u>		<u>Projected FY 1990</u>	
	<u>Full Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>(\$000s)</u>
Federal Salaries & Expenses	46	\$ 1,833	94	\$ 3,092
Unrestricted trust	58	13,349	76	18,207
Restricted trust	-	111	-	950
Federal Grants & Contracts	-	-	-	-
Total	<u>104</u>	<u>\$15,293</u>	<u>170</u>	<u>\$22,249</u>

Future Year Prospectus

The principal goal for the Public Service programs of the Institution over the planning period is to further in a significant way the development of a coherent public understanding of intercultural and international issues at work today. This will be addressed in part through the operations of the International Center, and in part by examining the potential for a Smithsonian series of supplementary educational materials in the form of publications which combine printed work, sound, and motion picture media along with the broadest range of other available technologies. The Institution, because of information recently available as a result of the collections inventory, and because of more diverse visiting and scholarly audiences expected in future years, is in a position to make major contributions in this area. This endeavor will involve the coordination of public service activities with business management, educational activities, and scholarly research projects throughout the Institution. What is foreseen is an overall effort which will provide educational institutions, foreign and domestic, with new teaching and learning materials designed and produced from the resources of Smithsonian scholars and collections. In addition some existing materials may be suitable for republication in new formats. An understanding of this kind is important, will take time, and will be phased with the ongoing activities of Public Service units. The International Center will facilitate many of these objectives.

An example of the educational value of Smithsonian resources and activities is the major series for public television, Smithsonian World, to be broadcast for a second year under an initial grant of \$3.5 million from the McDornell Foundation. Hosted by David McCullough and dealing with subjects and study areas related to Smithsonian interests, the second season is scheduled to begin this fall.



Learning and enjoying. For some one million visitors annually, the Folklife Festival on the Mall offers an opportunity to experience the rich cultural heritage of this country. A wood carver from Alaska demonstrates his skills at the summer 1984 Festival.

The Smithsonian Press publishes for libraries, museums, scientific institutions and interested members of the public, the government funded scientific, technological, and historical monographs of Smithsonian curators and staff experts. The Press also edits and designs federally financed exhibition catalogs, educational pamphlets, and information leaflets that serve the millions of visitors to the Smithsonian in Washington, D. C. and extensive programs conducted all over the nation. These services will continue throughout the planning period. The Press also publishes with trust funds scholarly and general interest books of high quality, together with recordings which preserve significant developments in the history of American music.

It is envisioned that the Office of International Activities (OIA) will play a vital role over the planning period due primarily to the expected activities of the new International Center. OIA staff will coordinate with and will travel to the countries featured in the Quadrangle to administer exchange agreements and regional study programs. For non-Quadrangle countries, OIA will manage growing visas and passport services connected with other Smithsonian bureau activities such as the Conservation Analytical Laboratory's proposed conservation training program and the Office of Museum Programs' advisory service to foreign museums.

The Office of Folklife Programs engages in the documentation, analysis, presentation and conservation of living folklife traditions. In addition to the scholarly study of folklife, the Office endeavors through its public programs to give national recognition to, and to educate wider audiences about, a variety of traditional cultural forms. Future exhibition plans include cooperation with the International Center in producing exhibits on folklife from the countries included within the Center's scope, particularly on the topic of cultural conservation. The Office also plans to expand the educational use of its archives, which includes recordings of Festival performances, fieldwork interviews, and documentation of other Office projects (e.g. film/monograph series publications, the FDR Centennial concert, Inaugural events, and the Celebration: A World of Art and Ritual exhibition at the Renwick).

Coinciding with completion of the Quadrangle construction and the formal opening of the new Center for African, Near Eastern and Asian Cultures will be a special colloquium focusing on these separate expressions and their contributions to world civilizations. The Office of Smithsonian Symposia and Seminars will coordinate this effort. The Office is also involved in planning the Institution's observances of the 200th anniversary of the signing of the Constitution. A seminar is planned, "Learning the Duties of Citizenship," which will examine childhood experience as preparation for adult civic responsibilities; this will be one of several activities leading to a major international symposium on "the Pursuit of Justice" in 1987.

For FY 1987 the Office of Elementary and Secondary Education (OESE) plans to coordinate and assist with the Office's growing national outreach efforts to schools and other child-centered institutions, such as children's hospitals. In FY 1980, a cooperative effort between the OESE and The Children's Hospital National Medical Center was begun with support from the Smithsonian's special education programs trust funds. These startup funds

permitted the development of test versions of activity packets based on Smithsonian collections for hospitalized children between the ages of five and eighteen. The project has now advanced to the stage where corporate implementation funds have been sought to enable completion of this project.

Over the next five years, federal growth of about \$1,300,000 is projected, rising from the current levels of \$1,800,000 to about \$3,100,000 by FY 1990. The increase is attributable most prominently in FY 1986 to the new International Center which will coordinate collaborative research projects involving Smithsonian, United States, and foreign scholars. The programs will lead to a series of international and interdisciplinary symposia, designed to encourage inquiry across cultures, which will be held in conjunction with exhibitions and performance programs. Some additional trust funding is forecast for the Visitor Information and Associates' Reception Center to provide an increase in services to the general public and to respond to an expected growth in telephone and written inquiries. Overall trust funded activities are projected to increase from about \$13,000,000 in FY 1984 to approximately \$19,000,000 in FY 1990, but much of this is attributable to increases in expenses associated with revenue producing activities of the SI, and the research, symposia, education, exhibitions and performances programs of the International Center. Also, over the planning period ways will be considered to continue to enhance outreach programs, such as the radio, film, and video production activities of the Office of Telecommunications (including Smithsonian Galaxy, Radio Smithsonian, and Here at the Smithsonian), and the various worthwhile proposals that come forth from the bureaus. Detailed projections for Public Service Bureaus appear in Appendix I.

MUSEUM PROGRAMS

Museum Programs consists of the Office of Museum Programs, Conservation Analytical Laboratory, Office of the Registrar, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Archives, the Traveling Exhibition Service, and the National Museum Act. The Office of Horticulture and South Group Buildings Management also report to the Assistant Secretary for Museum Programs. Resources associated with these last named activities appear in the chapter on Administration, Financial and Other Support Services to be consistent with the budget presentation to the Office of Management and Budget. Collectively, these units provide a number of specialized services and programs to museums and research bureaus of the Institution and to the museum community at large. Most of these services relate to fundamental aspects of museum development and operations, such as collections management, conservation, production of exhibitions, training for museum professionals, and bibliographical and archival support for research. Other activities--traveling exhibitions, grant awards and technical assistance programs--make it possible for the Institution to share many of its resources with museums and similar organizations throughout the United States and abroad.

Museums today are recognized as important elements in the cultural and educational fabrics of both developed and developing nations and public and private organizations which support museums are paying increasing attention to the effectiveness and strength of their performance. More than ever before, museums are held accountable for the quality and condition of their collections, for the educational values of their exhibitions, and for the significance of their research and informational programs. In response to these changing perceptions, museums have begun to assign higher priorities to certain basic functions, particularly collections management and conservation, which traditionally have received less than adequate support. This heightened concern has created a need for better trained personnel in all areas of museum operations, for improved systems, and for an expansion of conservation services based on sound scientific analysis of the materials which make up museum collections. In addition, museums require strong library and archival resources to support their research and informational activities. Currently available resources can be expanded substantially by providing greater access to the growing number of networks of computerized bibliographic data bases, and through application of automated data processing systems to many library functions previously performed manually.

Much of the effort of the organizations within the Museum Programs function of the Institution is directed to these and similar issues. Over the planning period these units intend to strengthen their capabilities to assist the Institution and other museums to meet these critical needs.

Current and Projected Resources

The overwhelming proportion of support for the bureaus and offices of the Museum Programs organization in FY 1984 comes from federal appropriations. Of the approximately \$14,500,000 available for Museum Programs

activities \$9,200,000 or 63 percent are provided by federal support. A breakdown of FY 1984 and projected FY 1990 resource levels follows:

<u>Source of Funds</u>	<u>FY 1984</u>		<u>Projected FY 1990</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	217	\$ 9,173	314	\$16,758
Unrestricted trust	40	2,824	41	2,515
Restricted trust	6	2,493	2	1,029
Federal Grants & Contracts	-	45		
Total	<u>263</u>	<u>\$14,535</u>	<u>357</u>	<u>\$20,302</u>

Only the Traveling Exhibition Service has the majority of its support provided from unrestricted (\$2,102,000) and restricted trust funds (\$1,967,000) which constitute 92% of its resources in FY 1984. Limited trust fund support is available to the Smithsonian Institution Libraries and Archives for support of staff and related costs. In FY 1982, the Kellogg Foundation awarded the Office of Museum Programs (working in conjunction with the Resident Associate Program) a three year grant to foster the educational influence of museums. Apart from this, the Office of Museum Programs has revolving trust fund budgets to receive revenues for handling and shipping costs associated with audiovisual programs on conservation information. The Office of Horticulture, South Group Buildings Management and the Office of Exhibits Central have small trust fund accounts to provide support for trust fund activities.

Future Year Prospectus

Over the planning period, federal resources for Museum Programs units (excluding the Office of Horticulture and South Group Buildings Management) are expected to increase from \$9,000,000 to about \$17,000,000. The greatest part (about \$6,000,000) of this projected increase is associated with expanded library services and facilities, and with the work of the Conservation Analytical Laboratory. Only modest increases are forecast for museum training activities, archival programs, and exhibits support services.

Several activities are closely associated with such institutional initiatives as administration and maintenance of the Museum Support Center, and the Collections Management/Inventory program and are included in this chapter. The relocation of the Conservation Analytical Laboratory to the Museum Support Center and the expansion of its training and archaeometric research programs is a development of major importance to the Institution and to museums generally.

With regard to collections oriented research, the brochure prepared in 1977 to describe the then proposed Museum Support Center spoke of the importance of collections research in these terms: "Collections of objects and works of art represent the physical evidence of man's inventiveness and creativity and the environment in which he has evolved. Without objects, we would be unable to understand natural process, or the aspirations and achievements of the civilizations which preceded ours and which document our common origin and heritage. With objects, we can--through direct observation and tactile experience--grasp with greater clarity a sense of the forces that helped to shape those civilizations. The knowledge we get from the study of these objects provides new perspectives for understanding and influencing the directions in which mankind is moving."

Research at the Smithsonian has been traditionally driven by the collections. Currently, various bureaus are engaged to differing degrees in research on their diverse collections, and Appendix III contains some descriptions of these activities. In future years, use of the collections for research at the Smithsonian will increase. The recent inventory has brought into focus for Smithsonian and other researchers the variety, range, and depth of the collections, and the information potential they represent. The establishment of research and conservation laboratories and curatorial areas at the Museum Support Center, the provision of additional internships and fellowships, the regular upgrading and replacement of research equipment, plans for increasing skilled personnel and the growing importance of the Institution's international functions combine to provide a strengthened base from which collections oriented research can receive greater emphasis in future years. In addition, archaeometric studies will become increasingly important. In studying man-made objects, form and decoration have classically been the differentiators establishing provenance. With the advent of archaeometry, the chemical composition, internal structure and other physical characteristics of objects can be quantified and statistically analyzed by computer techniques. Such studies need large numbers of objects of known provenance to be sampled, accurately measured and the data stored in an accessible manner. The Smithsonian Archaeometric Research Collections and Records of the Conservation Analytical Laboratory have been set up to focus research in this area and to maintain a bank of data and samples.

All of the Conservation Analytical Laboratory's functions--conservation treatment, conservation science and archaeometry--moved to the Support Center in the fall of 1983 and occupy new laboratory and work areas totaling approximately 40,000 square feet. This space also will accommodate the Institution's new conservation training program which is now being planned. Phased growth of staff and resources to make proper and full use of these new facilities will occur throughout the planning period. Specialized equipment has been acquired and installed, recruiting activities for qualified conservation and scientific personnel have been pursued vigorously, and arrangements for the training program have been explored in cooperation with local universities and conservation professionals. The internal staff structure of the Laboratory has been reorganized to accommodate its larger size and its several specialized functions. Working from these foundations, the Laboratory will be in a substantially stronger position to offer increased conservation and related services to the

Institution's museums and to museums generally through its training and informational programs. A major thrust will be to coordinate and integrate these staff and facility resources effectively to broaden the range of expertise available for the training program, to provide a broader technological base for new work in conservation treatment, and to make full use of modern instruments and analytical methods to provide answers to important questions in conservation and collections research.

Work in archaeometry has thus far centered on chemical and petrographic analysis of objects and materials to determine provenance. In addition, neutron-induced autoradiography of paintings has been used in combination with other examination methods to give critical information on technique and attribution. These methodologies will continue, and others such as isotope analysis will be extended. Effective use of physical and chemical data derived from objects to determine their place in time or their origin depends upon comparison with an adequate data base. At present, these data bases and samples from objects of interest are scattered throughout the country and have limited uniformity of quality control. The Archaeometry Department of the Laboratory operates the Smithsonian Archaeometric Research Collections and Records (SARCAR) in order to bring these data together at a single point and to apply uniform criteria to them. SARCAR is essential to research on collections. It is a source of reference materials (petrographic thin sections, metallographic sections, etc.) and data (neutron activation, X-ray diffraction, electron microscope analyses results, etc.). The Smithsonian is committed to collections research and to the Fellowship Program in Materials Analysis for art history, anthropology, and the history of materials technology. The Archaeometry program will grow during the planning period and will enhance the Smithsonian's ability to use and preserve data in a meaningful and effective manner. The Laboratory plans to improve its methods of gathering and disseminating other data to serve practicing conservators and the general public. It will work closely with the Office of the Registrar in development of policies and procedures for the control of information and collection materials passing through the Laboratory.

The first steps to be taken in the conservation training program will be a series of seminars directed toward practicing conservators. These seminars will be the basic building blocks for a post graduate conservation training program for approximately eight to twelve students a year, beginning in FY 1986.

The branch Library at the Support Center will also work in close concert with the Laboratory to provide the bibliographic resources needed. The training section of the Office of Museum Programs will continue to participate in the development of the conservation training program and will assist in the production of audiovisual resources needed for the training, research, and treatment functions.

In addition to direct involvement with the Museum Support Center through the Laboratory and Library operations, the Assistant Secretary for Museum Programs participates in equipment acquisition and space utilization planning for the Center. The development and establishment of the Center's collections management systems and environmental practices also will continue to be a concern of that office.

Completion of the initial inventory of Smithsonian collections in June 1983 was a landmark in the development of improved collections management policies for the Institution. The inventory produced vital base-line data on current holdings which will enhance and clarify existing acquisition and catalogue records and serve as a base for computerized record keeping systems in the future. The inventory, however, is only one aspect of collections management which also involves accountability procedures contained in the collections policies and information management techniques of the Museums. These provide knowledge about and access to all of our objects and specimens. An additional two positions will be requested during the planning period to aid the Registrar in monitoring the compliance of individual museums with institutional collections management policies. This unit will continue to develop, oversee and coordinate the policies and practices related to the management of collections. The Office will evaluate the experience of the recent inventory effort to generate up-dated policies and plans for new inventory cycles appropriate to the nature and size of the collections of each of the museums, and it will continue to monitor future inventory activities. The Office will work closely with all museums to improve and refine their individual collections policies and, in cooperation with the Office of Museum Programs, will develop and offer training programs for Smithsonian personnel in collections registration and related functions. The Office of the Registrar will continue to oversee the affairs of the Smithsonian's Registrarial Council and will assemble collections management information for dissemination through that group.

The Smithsonian Institution Libraries (SIL) reaches a turning point in many of its operations in FY 1984 with the implementation of the automated library system, which has been planned over the last several years in cooperation with the Office of Information Resource Management. The system will support wider and more effective use of book, manuscript and graphic resources and will provide on-line access to additional bibliographic information held in library network data bases. With this major development in place, SIL will address other issues, such as enhancement of research collections; increased participation in networking with other research libraries; overcoming backlog problems in such areas as trade literature, conservation, deacidification, and catalogue conversion; improvement of library space and facilities; and upgrading of staff. A major goal is to increase the book purchase fund. The SIL spends about \$700 per researcher on books and journals each year but must borrow an average of 100 books each day from other libraries which means Smithsonian researchers wait an average of three weeks for each of these 25,000 books per year, a serious and costly detriment to research; further, borrowed materials frequently must be returned to the lending library before the SI staff has completed use. The expenditure per researcher needs to grow by three or four times to avoid these problems. For example, in the National Museum of Natural History there are new emphases on African anthropology, island ecosystems, and other topics which need to be funded. At the National Zoological Park, bibliographic collections in such fields as animal nutrition and veterinary medicine must be kept current, and similar serious gaps occur in the collections of SIL branches which support the Smithsonian Tropical Research Institute, the National Air and Space Museum, the Smithsonian Astrophysical Observatory, the Cooper-Hewitt and the Museum Reference Center. The growth



Smithsonian's Office of Exhibits Central Chief, James Mahoney (right), discusses exhibition techniques with participants from Yugoslavia, the Federal Republic of Germany, the German Democratic Republic, Romania, Belgium and Italy attending a special international project on museum administration at the Smithsonian.

of programs planned for the National Museum of African Art after its move to the Quadrangle in 1986 will also require substantially greater bibliographic services.

SIL is also looking ahead to improve basic facilities for storage purposes. Approximately 100,000 volumes, including 50,000 pieces of trade literature, are not being stored in adequate circumstances. Many of these items are irreplaceable. The Institution is considering ways to solve the immediate storage problem, and, for the long run, is beginning to plan for a possible library facility.

Smithsonian Archives (SIA) during the planning period will extend its archival and records management programs to all records-producing offices of the Institution, resulting in substantial increases in annual transfer volumes and annual growth in holdings. The Archives will continue its project to identify and describe photographic collections in the Institution, and to issue a guide based on the results of this two-year survey. SIA will thereafter maintain and update an ongoing record of photographic resources. Further work on developing description and cataloguing down to the individual image level within collections is expected to follow the initial survey project. The Archives will expand its oral history program and will embark on a phased program of improving conservation work. A survey of scientific illustrations will be undertaken and a guide produced. SIA will maintain and update an ongoing record of scientific illustrations as part of the program in Natural History. Like the Libraries, the Archives also has space problems which will need to be solved.

The Office of Museum Programs (OMP) over the planning period will seek a gradual increase in federal support for its Native American Training and audiovisual programs. OMP will participate with other units in strengthening Native American Programs in general. The number of qualified Native Americans available to serve the more than 100 tribal museums and cultural centers remains discouragingly small, and although these museums hold remarkable and important collections of historical and ethnological materials, they lack resources to provide the required training themselves, or to obtain much needed technical assistance for their museum operations. The great popularity and heavy continuous use of the informational audiovisual programs dealing with preventive maintenance and care of collections in museums have been in great demand. OMP plans to increase the number of subjects covered by these slide sets and tapes and will require funding for professional production support to make this possible.

In FY 1984, the Office of Exhibits Central (OEC) served more than thirty-nine Smithsonian units and was involved in some two-hundred and fifty projects. OEC is a major source of exhibit support for the Traveling Exhibition Service for its national and international exhibition programs. To maintain productive capacity in the coming years, the Office of Exhibits Central plans to add a total of thirteen exhibits professionals to its staff. These new positions will help to fill Institution wide demand for design and editing services, model making, graphics production, and exhibit fabrication. In addition, the Office plans to continue to replace worn and outdated equipment, including its freeze-dry machinery, and will also upgrade its shops and work areas by installation of such devices as dust collectors and exhaust systems. Some additional support will be required

for servicing Quadrangle programs beginning in FY 1986, and this is incorporated into the Office's projections.

The Traveling Exhibition Service (SITES) international exhibition programs, which are multi-year projects, have enjoyed much success to date. These have included American Impressionism which traveled throughout Europe and American Porcelain which is circulating throughout the Far East and India. Other exhibitions currently under development and which will extend well into the planning period include From Ebla to Damascus containing objects of antiquity from Syria, Hollywood: Myth and Reality which may be presented in Europe as well as in the United States, and in cooperation with the United States Information Agency, Good as Gold: Alternative Materials in American Jewelry which will tour South America for eighteen months. Precious Legacy: Judaic Treasures from Czechoslovak State Collections opened at the Smithsonian late in 1983 and will tour widely in the United States through 1985.

In 1982, SITES has maintained its "poster panel" shows. During the 1983-1984 period SITES developed Colorful Kite Tails and Getting the Picture: The Growth of TV in America. Poster panel shows are two-dimensional, printed versions of exhibitions, which may be purchased by SITES' clients who wish to keep them permanently for their own exhibition or collection purposes. SITES plans to produce at least one of these poster panel exhibitions each year.

The Traveling Exhibition Service is scheduled to move to the Quadrangle in 1986, where it will cooperate with other Smithsonian bureaus in production of exhibitions related to Quadrangle museum and research activities. These joint efforts will be similar to those used presently for exhibitions in the Evans Hall in the Museum of Natural History.

The National Museum Act (NMA) makes grants to museums, academic institutions, and museum associations for the purpose of enhancing professionalism in the museum community, advancing knowledge about critical museum-related problems, and disseminating information through seminars and publications. Through its various programs over the years, the Act has emphasized conservation and the improvement of preservation practices. Although conservation awareness has increased recently in the museum community and among federal funding agencies, the Act remains unique in its support of individuals who are pursuing professional training in conservation and in its funding of scientific research on both the deterioration mechanisms of objects and materials used by conservators. The Office of the Assistant Secretary for Museum Programs and the NMA staff maintain continuing liaison with professional associations in order to monitor changing museum issues and with federal funding agencies to avoid occurrences of overlap. Reauthorization is being sought for FY 1986, FY 1987, and FY 1988.

The Office of Horticulture will absorb a major responsibility for the garden being planned for the top of the Quadrangle Building, and resources to cover this added requirement are contained in the Office's projections. During the planning period, this Office also plans to enlarge and improve its greenhouse facilities at the Old Soldiers and Airmen's Home, to continue its work with special collections of rare and endangered floral species and to place special emphasis on the care of the trees on Smithsonian grounds

along the Mall. Resources over the planning period for all activities are contained in the Administrative, Financial, and Other Support Services chapter.

SPECIAL PROGRAMS

Special Programs include the Offices of American and Folklife Studies, the International Environmental Science Program, Academic and Educational Programs (including the Office of Symposia and Seminars, the Office of Elementary and Secondary Education, and the Office of Fellowships and Grants); the Collections Management/Inventory Program; and the trust funded Collections Acquisition, Scholarly Studies, Education and Special Exhibition Programs. This chapter also contains the equipping, move and operating requirements for the Museum Support Center. The resources associated with the International Environmental Science Program, the Fellowship Programs of the Institution, the Collections Management/Inventory Program, and the trust funded Collections Acquisition, Scholarly Studies, Education, and Special Exhibition funds are generally available to all organizations of the Institution if they meet standards and selection procedures.

Current and Projected Resources

<u>Source of Funds</u>	<u>FY 1984</u>		<u>Projected FY 1990</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	114	\$10,020	132	\$ 6,364
Unrestricted trust	14	5,019	20	11,088
Restricted trust	-	283	-	328
Federal Grants & Contracts	-	394	-	289
Total	<u>128</u>	<u>\$15,716</u>	<u>152</u>	<u>\$18,069</u>

Funding patterns vary, and include programs which are funded entirely from federal appropriations to those funded solely through trust operations of the Institution. American and Folklife Studies operate with both federal appropriations and trust funds and also seek grants and contracts for special projects. Federal funds support the Folklife administrative staff as well as office expenses; travel expenses; research and publication efforts; two-thirds of the cost associated with the annual folklife festival; and special projects, such as the recent Museum of American History exhibit Southeastern Potteries. Trust funds support the salaries of the remaining permanent staff members, one-third the cost of the annual festival, and some travel and office expenses. Grants and contracts are sought to augment programs at the annual festival (e.g. the Alaska and the Black Urban Expressions programs at the 1984 festival).

Trust funds cover the direct costs of the Visiting Research Fellowships, the Regent's Fellowships, the Cooperative Education Program, and the James E. Webb Fellowship program. Administrative costs for the Office of Fellowships and Grants, the office which manages these programs, are essen-

tially federally funded. In addition to administering the Institution's entire range of fellowship offerings, the Office of Fellowships and Grants also manages, for the Assistant Secretary for Science, the Special Foreign Currency Program.

The Office of Elementary and Secondary Education conducts its basic activities through federal appropriations, and solicits trust funds or grants for support of special projects, meetings or conferences. The Office of Symposia and Seminars receives an annual allotment from trust funds for administration and direction of its activities, which include seeking outside support for the academic and intellectual conferences which it coordinates. Both offices are administered by the Assistant Secretary for Public Service.

The International Environmental Research Program was established in the early 1970s to promote interbureau research on environmental matters by funding special, long-term projects using the principal scientific strengths of such organizations as the Tropical Research Institute, Smithsonian Environmental Research Center, Natural History Museum, and the Zoo. These funds are federally appropriated and administered by the Assistant Secretary for Science.

Collections Management/Inventory Programs. In FY 1979, Congress appropriated special funds in the amount of \$500,000 to help allow the Institution to begin conducting a major inventory of its various collections, including those being housed in the Museum Support Center. The initial inventory was completed in June 1983 with some one hundred million items documented as being in the collections, but there is a real need to continue the program in future years. There was an acceleration of efforts in FY 1984 for reconciling the inventory results with catalogue and other records, establishing routine procedures for entering data on incoming objects, refining the results of collections that were inventoried by batch rather than individual counts, and continuing to refine and improve on the data processing systems for accessing information on the collections. The program will continue to be administered by the Assistant Secretary for Museum Programs, working in close consultation with the Assistant Secretaries for Science and History and Art to assure that from year-to-year the most urgent projects are selected for funding through this appropriation.

Collections Acquisition, Scholarly Studies, Education, and Special Exhibition Programs. In FY 1978, the Regents established a special trust account to be used for strengthening the Smithsonian's collections through purchase of major works of art and objects of scientific and historical value, and to allow for the funding of special projects important to the research and educational functions of the Institution. A total of \$17,845,000 in unrestricted trust funds was approved by the Regents for allocation to bureaus through FY 1984: \$4,350,000 for scholarly projects, \$4,600,000 for educational activities, and \$8,895,000 for collections acquisitions.

These funds, along with about \$200,000 that had been earmarked in earlier years for similar purposes, have made possible important activities in various museums and other bureaus of the Institution, including major acquisitions for the Hirshhorn Museum and Sculpture Garden, the Portrait

Gallery, the Museum of American Art, the Freer Gallery of Art, the Cooper-Hewitt Museum, and the Museums of Natural History, American History, and African Art. The funds have also supported major scientific studies and educational efforts, scientific workshops and conferences, student intern programs, Native American training programs, presentations, programs and performances for special groups including the handicapped and the elderly, and weekend films and lectures for the general public. It is anticipated, given available funds, that these Regents' programs will continue during the planning period.

In a similar fashion, a trust-funded Special Exhibition Program is being proposed for establishment beginning in FY 1985, and is budgeted for the initial year at \$3,000,000. If implemented, the program will enable the Institution to fund exhibits for the general public which would otherwise not be possible because of timing or lack of resources. Appropriations of \$750,000 were received for a federally funded special exhibitions program in FY 1981. Several exhibitions were successfully produced over the next few years, during which time it became increasingly apparent that the financing needs for the exhibition program of the Evans Hall in the National Museum of Natural History, and the program of phased reinstallation of the permanent exhibit halls within the Museum of American History, were such overriding priorities that the resources of this program would best be allocated to those purposes on a permanent basis. Accordingly, for FY 1985 and beyond, the federal resources formerly shown under this head are included in the figures displayed for the Museum of American History and the Museum of Natural History. The proposed trust program results from earlier studies undertaken on ways in which nonappropriated funds could be directed to exhibitions in order to effectively continue a special exhibitions effort.

Museum Support Center Equipment and Operations. During FY 1984, many of the planned laboratories at the Museum Support Center were established and made operational and work on completing the rest of these facilities has proceeded steadily. Administrative and building management functions, including the automated data processing center, have been established to serve occupants and users of the Center. Installation of the initial segment of the three-tiered storage system for the "wet" collections (those stored in alcohol) is scheduled for completion in late 1984; transfer of collections will start immediately upon its acceptance. Under a contract awarded by the General Services Administration in January 1984, the structural framework of the first segment of the storage system of the "dry" collections is scheduled for installation by the fall of 1985. Plans call for the acquisition in FY 1985 of a major portion of the individual storage units (drawers, shelves, enclosures) needed to hold the collections. The final portion of these units will be obtained in early FY 1986; detailed planning for the storage equipment for the remaining 39% of the Museum Support Center storage space will also be initiated at that time. Detailed schedules covering all aspects of move-related tasks were prepared for all Smithsonian units involved in the relocation of collections. Using these schedules, work has begun on cleaning and packing the collection. As this process continues, collections are placed in staging areas from which they will be moved as the various parts of the storage system become ready to receive them. Move activities, which are governed by strict procedures and standards established to safeguard the collections, are expected to continue through FY 1989.

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The Office of Folklife Programs will continue to plan and produce the annual Festival of American Folklife which takes place during the two-week period at the end of June and over the July 4th holiday weekend. This Office will also continue its research and publication efforts, including the publishing of scholarly monographs on aspects of American culture (these monographs are accompanied by documentary films which visually explicate technical aspects of the written treatises) and mount special projects within the museums such as the "living celebrations" for the Renwick Gallery in FY 1983 which were part of the "Celebration" exhibition. Projections contained in this chapter and the Appendix tables reflect these plans.

Only small increases in federal resources are projected over the planning period for administering the activities of the Office of Fellowships and Grants including the Special Foreign Currency Program. If trust funds are available, however, significant added support for fellowships and stipends may occur. The Institution has given high priority to this program. Additional funding in FY 1985-87 from the Rockefeller Foundation enabled the Office to offer special fellowships related to Quadrangle programs. Continued increases in trust funding will permit expansion of the program to include more senior post-doctoral fellows as well as increasing the overall number of awards offered. Increases are also planned for the prestigious Regents Fellowships. These awards are offered to scholars of distinction and breadth of intellect to conduct in-residence studies of major importance.

As part of the effort to enhance minority participation in the life of the Institution, plans also call for providing expanding opportunities for minority students through internships and the Cooperative Education Program, and to increasing visiting faculty appointments available to faculty members from minority academic institutions.

No major growth of federal projects or resources is planned for the Office of Elementary and Secondary Education, but some expansion of trust supported programs is planned if funds become available. An anthropology resource kit for use in elementary and secondary schools has been developed, and, if it proves popular, may be adapted later for various other subjects in art, history, and science. Some additional workshops, the completion of a special project directed toward producing learning materials for hospitalized children, expanded programs for handicapped visitors, and a program designed to introduce minority young people to career opportunities at the Smithsonian also are underway. Ways to fund these activities through grants and contracts or through the Institution's earmarked educational trust funds are being considered.

Some added appropriations are projected in future years for travel, supplies and publication costs associated with the projects supported through the International Environmental Science Program, but current projections call for stable funding of the Symposia and Seminars, and Collections Management/Inventory Programs. Some growth in trust support for the Collection Acquisition, Scholarly Studies, and Education Program and the Special Exhibition Program is projected, but as is the case for other trust funded programs, this support is contingent in future years on economic

conditions, institutional priorities, and the abilities of the various auxiliary and revenue producing activities to sustain their popularity and financial performances.

The FY 1984 appropriations of \$5,251,000 allowed the Institution to operate the Museum Support Center. For FY 1985, the Institution is requesting \$9,180,000 in appropriations which includes \$7,500,000 for accelerating the planned acquisition of storage equipment and complete the purchase of equipment needed for the initial move of collections to the Center. Also included are \$750,000 for move of collections to the Center and \$930,000 for various maintenance and operating activities. In FY 1986, the Institution is seeking \$5,800,000 for equipment, move, and operating costs. For FY 1987-90, current plans call for equipping the balance of the Center and continuing with movement of collections. As reductions to equipment requirements over the planning period occur, there will be less need for federal appropriations.

Quadrangle. FY 1985 is the first year the Institution sought federal appropriations in a substantial way for Quadrangle staff, operations, and equipment. Some \$1,109,000 and twenty-one positions are contained in the FY 1985 budget request for the African Art Museum, Sackler Gallery, Libraries Traveling Exhibition Service, and for the International Center. For FY 1986, the costs associated with Quadrangle programs and operations are being requested as part of the base of the bureaus and units involved, and no longer appear in the Special Programs chapter, but are aggregated for display purposes in Table 5. Total appropriations for FY 1986 being requested amount to approximately \$6,700,000 for programs and operations, mostly for security, building and ground maintenance, utilities, and staffing and program support costs of the Museum of African Art, the Sackler Gallery, and the International Center; another \$8,000,000 is being sought for equipping the Quadrangle facilities through the construction account.

Much of the federal increase during FY 1984-1990 associated with Special Programs is for necessary operating and equipment funds, especially for the Museum Support Center. In FY 1990, Special Programs funding is projected to decrease because of reduced equipment requirements for the Museum Support Center. Unrestricted funds are expected to increase for fellowships and grants, the folklife program, and the trust funded collections acquisition, scholarly studies, education, and special exhibition programs. Detailed projections are presented in Appendix I.

ASSOCIATES PROGRAMS

Founded in 1965 on the 200th birthday of James Smithson, the original Associate Program was designed especially for residents of the Washington metropolitan area, drawing on the varied resources of the Institution to provide educational and cultural opportunities to individuals or families who chose to join. The larger institutional aims in public education, however, have always been to make Smithsonian resources increasingly accessible to people of all ages and without regard to their geographic distance from the National Mall. With the establishment of the Smithsonian magazine in April 1970 as a major benefit and feature of a membership program, the original Smithsonian Associate Program has evolved now to include separate National and Resident organizations which offer educational and learning experiences geared to public constituencies in the Washington area, as well as across the country.

This chapter covers future plans, changes in activities, and resource estimates for Associates programs, including the National and Resident Associate Programs, the Office of Membership and Development which coordinates these Programs, and the Magazine which is part of the Office of Public Service.

Current and Projected Resources

These trust-funded operations will have FY 1984 Associate activity revenues totaling approximately \$72,165,000 and 167 employees. Minor amounts were also available from special purpose funds and restricted gifts and grants. As a group, they will generate \$11,595,000 in unrestricted trust income for the Institution in FY 1984 after cost of sales, payroll, and other operating expenses. Gross expenses for unrestricted trust Associate operations will amount to over \$60,570,000.

National and international study tours, lectures and seminars in Washington and across the U.S., and contributing membership activities comprise the ways through which the National Associate Program serves members without regard to their geographic location. The Resident Associate Program offers a variety of popular classes, lectures, tours, and other activities for members in the metropolitan Washington area. It has generally been self-supporting since 1972, generating modest net funds each year which are budgeted with unrestricted funds of the Institution. The fund raising and administrative costs of the Office of Membership and Development are considered as an expense item against unrestricted funds. Contributions to the Smithsonian from corporations, foundations and individuals approximate \$5,500,000 in FY 1984. This figure does not include the Contributing Membership Program, contributions from the members of the James Smithson Society, or contributions toward the Quadrangle project or other construction and renovation programs.

The Magazine has been one of the most successful public education ventures established by the Institution. Its general acceptance is a tribute to the role it has played in filling a need for style and elegance, as

well as lucid reporting on cultural and scientific developments taking place in today's world. The largest portion of the resources for this group of activities is contained within the operations of the Magazine.

Unrestricted income and expenses for FY 1984 and projected FY 1990 are summarized below:

	FY 1984		Projected FY 1990	
	<u>Full-Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
INCOME:				
Office of Membership and Development		-		-
Resident Associate Program		\$ 2,905		\$ 4,030
National Associate Program		11,660		18,500
Magazine		57,600		83,100
Total		<u>\$72,165</u>		<u>\$105,630</u>
EXPENSES:				
Office of Membership and Development	12	\$ 900	20	\$ 934
Resident Associate Program	46	3,090	55	4,105
National Associate Program	28	10,730	37	16,000
Magazine	88	45,850	92	70,400
Total	174	<u>\$60,570</u>	204	<u>\$91,439</u>
NET GAIN:		\$11,595		\$14,191

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National Associate Program. The objectives of the National Associate Program are to provide educational experiences of superior quality in subjects relating to the Smithsonian and to encourage support for the Institution's work. The enthusiastic participation of its national constituency has enabled the Program to meet and advance its outreach goals and has made the Program's fundraising activities a significant source of revenue for the Institution's unrestricted funds.

Each year, representatives of the Smithsonian travel to 20 different cities and present a total of over 200 lectures, seminars, workshops, and performances in cosponsorship with local scientific and cultural organiza-

tions. In 1985 the program will extend to Americans residing outside the continental United States, beginning with a series in Tokyo.

These activities are expected to continue to provide exciting learning opportunities for Associates and positive publicity for the Institution. In the past year 122 indepth newspaper articles, 40 TV interviews, placement of five Smithsonian Profile programs nationwide through cable networks, and innumerable radio interviews reflected the intense interest in the Program and the Institution.

Associates participated in over 100 foreign and domestic study tours in 1984. The market is expected to expand in the next five years. A more concerted effort will be made to increase the conversion of these travelers to Contributing Members.

The number of Contributing Members is expected to reach 45,000 by 1990 and the net funds raised by the National Associate Programs for the Institution's unrestricted funds in that year is projected to be \$2,500,000.

Resident Associate Program. Buoyed by increases in membership, retention of members, and attendance in FY 1984, the Resident Associate Program continues to enhance and develop its creative leadership role--both nationally and internationally--in museum membership, continuing education, and performing arts. The performing arts division (including Discovery Theater's live and puppet performances for children and families), undertaken in FY 1984 and now established, features a broad range of fine concerts and dance and theater events. The lively and extensive program of high quality cultural and educational activities is organized every month of the year--over 1,200 separate activities, many with multi-sections--in FY 1984, attended by over 200,000 persons. The next five years promise a growth rate of at least 25 percent. Telecommunications efforts, including audio-bridged and videotaped programs, have provided new arenas for national exposure this year, and the Program is building on the experience and contacts gained. The Program will, as it has done regularly, commission works of art as occasions arise.

RAP will continue to organize outstanding courses, seminars, lectures, films, performances, workshops, and study tours for adults and young people--members and the public--all taught and led by Smithsonian and guest scholars. Long a leader in planning programs in conjunction with Institutional, national, and international events, RAP is now planning actively for the centennial of the birth of Eleanor Roosevelt and the Festival of India in FY 1985, the bicentennial of the Constitution in FY 1987, and the quincentennial of the discovery of America in 1992, among other such events.

Expanding and broadening the composition of RAP membership, which now numbers over 55,000--representing at least 110,000 persons--and which continues to enjoy modest growth and a high retention rate (80.7 percent in FY 1984), are top priorities. In the immediate future, particular emphasis will be placed on innovative efforts to reach new audiences through greater diversity in programming and outreach. Telecommunications projects are underway with The George Washington University, the Educational Television Association, and C-Span, among others. Audio-teleconferencing of courses to

university campuses and videotaping of some programs have already been successful in FY 1984 and offer promising avenues for the development of new constituencies. Collaborative programs with community and national organizations such as the Folger Shakespeare Library, Audubon Naturalist Society, the National Trust for Historic Preservation, the American Institute of Architects, and the American Society of Interior Designers are some of RAPs viable affiliations.

The scholarship program for inner city young people and adults is on-going. Discover Graphics, first undertaken in FY 1983 with special funding, provides free etching/lithographic workshops for area secondary school students and their teachers. The science lecture series offered free to science-oriented high school students identified by their teachers, begun in FY 1984, will be a regular outreach feature.

The Program will continue to lend resources to the major three-year Kellogg Foundation grant received by the Institution in 1982 that is enabling the Smithsonian to improve and expand the educational role of museums nationwide. It is hoped that this grant will be extended for two more years.

To help broaden the composition of membership, active promotional efforts to minority members of the community will continue to be made, including advertisements in relevant publications and direct mail campaigns. The sellout performance of the Chinese Traditional Orchestra, planned to complement the opening of Treasures from the Shanghai Museum: 6,000 Years of Chinese Art at the National Museum of Natural History, is an example of such an effort--in this case augmented by funds from the Smithsonian Educational Outreach fund and the NMNH. The success of the "Tuesday Mornings at the Smithsonian" senior citizen lecture series may lead to expanded daytime activities for those who can more easily participate during daytime hours. Efforts to reach more of the area's young professionals are being undertaken.

During FY 1985, the entire office should be computer-automated to facilitate speedier production of publications and more efficient registration and membership activities.

The Program will pursue ongoing efforts to acquire more office, classroom, and performance space. While addition of the new Education Center in the Quadrangle will provide some relief, as Program audiences grow and more performing arts events are sponsored, demand for now badly needed large lecture/performance spaces will increase.

Office of Membership and Development. The nature of corporate and foundation involvement in art and culture has been changing as a result of the policy of the current administration which calls for the private sector to increase support to various human and social services. Competition for art and cultural funds is increasing. The case for contributions to the Smithsonian, therefore, now requires greater and more continuous effort, and these conditions can be expected to persist well into the future.

As a result, several measures are now being planned. These include the preparation of a general brochure which will thoroughly present the

Institution's needs for a wide variety of private support, making clear the historic relationship with federal appropriations. With the Quadrangle fund-raising ending, attention will be directed to the needs of the other bureaus and to renewed emphasis on the development of deferred giving instruments such as the Pooled Income Fund, Unitrust, Annuity Trusts, etc. The staff is being expanded to allow a more personal approach to soliciting specific project sponsorships from foundations, corporations, and individuals. Finally, a capital campaign for expansion of the Cooper-Hewitt Museum, now in planning, will be carried out.

Smithsonian Magazine. Although the Magazine's management is justifiably cautious about the ebb and flow of fashion in publishing, it also expects that the demand for its product will remain strong, with an annual financial surplus estimated at \$11,000,000 to \$12,000,000 over the next few years. It is primarily from these funds that the Board of Regents has been able to budget for the recently approved Regent's program for acquisitions, scholarly studies and educational outreach projects, to fund certain expenses previously met with federal appropriations, and to set aside sums each year for the enhancement of the Institution's endowment. The Magazine will continue to produce a high quality product and to be supported entirely by the trust revenues which it generates. New growth in subscribers is expected to average 25,000 a year from the present level of about 2,000,000. If required because of inflationary cost increases associated with production and mailing, subscription rates may increase in future years.

With continued good performance by Associate Programs, revenues should increase from current levels of about \$72,000,000 to \$106,000,000 in FY 1990, with net income from these activities projected at about \$14,000,000. Detailed expense projections appear in Appendix I.

BUSINESS MANAGEMENT ACTIVITIES

This section covers plans, anticipated changes, and resource estimates for selected auxiliary activities conducted under the auspices of the Business Management Office. These revenue producing activities include the Museum Shops, Mail Order Division, Concessions/Food Services, and Parking operations. The revenue-producing activities of the Magazine, Smithsonian Press and Traveling Exhibition Service are separate from the Business Management Office, and are presented in appropriate chapters and tables corresponding to the organization of the Institution and the FY 1986 budget submission.

The operations described in this section, like the Institution's Associates Programs, are an effort to offer the public a diverse range of services, to make the Smithsonian more accessible, and to enhance the educational experiences generated by exhibits and other activities.

Current and Projected Resources

In FY 1984, these trust-funded operations will have revenues totaling some \$27,700,000 and 264 employees. As a group they generated \$4,900,000 in unrestricted net income for the Institution after cost of sales, payroll, and other operating expenses. By FY 1990, gross income from these activities is expected to increase by approximately \$15,500,000 with a net gain of approximately \$7,200,000 being made available for application to various activities and programs of the Institution.

	<u>Full-Time Employment</u>		<u>Unrestricted Funds</u> ((\$000s))	
	<u>FY 1984</u>	<u>FY 1990</u>	<u>FY 1984</u>	<u>FY 1990</u>
INCOME:				
Business Management Ofc.			\$ 105	\$ 950
Museum Shops			13,965	19,800
Mail Order Division			10,895	19,200
Concessions/Food Services			1,465	1,500
Parking			1,285	1,825
Total			<u>\$ 27,715</u>	<u>\$ 43,275</u>
EXPENSES:				
Business Management Ofc.	5	5	\$ 320	\$ 415
Museum Shops	162	182	12,565	18,100
Mail Order Division	48	56	9,095	16,800
Concessions/Food Services	1	1	395	150
Parking	17	17	475	625
Total	<u>233</u>	<u>261</u>	<u>\$ 22,850</u>	<u>\$ 36,090</u>
Net Gain			<u>\$ 4,865</u>	<u>\$ 7,185</u>

Business Management Office/Product Licensing. In addition to the administration of the business activities listed below, this office is responsible for the product licensing program which makes reproductions and other products closely related to the Smithsonian collections available for purchase by individuals throughout the country, through licensing agreements with various manufacturers.

Museum Shops. The Smithsonian has provided sales desks since the 1860s, but substantial sales results are a recent development. Centrally managed museum shops are located in the Museum of American History, the Museum of Natural History, the Arts and Industries Building, the Air and Space Museum, the Hirshhorn Museum and Sculpture Garden, the Museum of American Art, the Portrait Gallery, the Renwick Gallery, and the Museum of African Art. A much expanded and modernized shop was opened in the Museum of American History during FY 1984.

Items offered for sale in the museum shops are selected to meet special requirements. Each item must expand the educational value of an individual's visit, relate to the collections, be appropriate to the museum where sold, and conform to high standards of quality and taste. Catalogues and other publications derived from exhibition themes and subjects, including works by Smithsonian scholars, are important to the museum shops. Other items include reproductions of artifacts, craft products, and educational games and toys for children.

Mail Order Division. Formed in 1975, the Mail Order Division produces several catalogues each year. These catalogues are sent to Associates and offer special items selected to reflect Smithsonian collections and programs. High standards of quality, taste, and educational value are maintained. As many as 300,000 catalogue orders can be processed annually through the Division's receiving and shipping center in Springfield, Virginia.

Concessions/Food Services. Through concession arrangements, the Institution provides visitors with restaurant facilities and recorded tour rental systems in the major Smithsonian museums. An old-fashioned ice cream parlor is also operated by a concessionaire in the Museum of American History. Other concessions include the popular carousel and popcorn wagons on the Mall during the spring and summer.

Parking. Parking revenues are generated by the parking garage located under the Air and Space Museum. Supplemental fees are charged to Associates and the public parking on other Smithsonian lots during weekends.

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In the period from FY 1984 to FY 1990, the primary focus in the Business Management activities will be on improving the quality of goods and services offered to the public as well as the operational efficiency of the business activities. Expanded program activity will be associated primarily with the opening of new museum shop facilities in the Quadrangle replacing the existing shop of the National Museum of African Art, as well as the renovation and expansion of existing facilities in the National

Museum of American History, the opening of new restaurant facilities in the National Air and Space Museum to improve access for the public, and increased efforts in the area of product licensing. As in the past, high standards for the quality and value of goods and services will be maintained. Detailed projections appear in Appendix I.

ADMINISTRATIVE, FINANCIAL AND OTHER SUPPORT SERVICES

Organization units described in this chapter include central management functions provided by the Office of the Secretary, Under Secretary, Assistant Secretary for Administration, General Counsel, Treasurer, Congressional Liaison, and Director of Facilities Services. They also include the following specialized administrative and technical offices: Accounting and Financial Services, Audits, Contracts, Equal Opportunity, Grants and Risk Management, Information Resource Management, Management Analysis, Personnel Administration, Printing and Photographic Services, Programming and Budget, Public Affairs, Special Events, Supply Services, and Travel Services. Also included is the International Exchange Service reporting to the Assistant Secretary for Administration.

They also consist of three major facilities offices: Design and Construction, Plant Services, and Protection, with primary orientation to the physical plant and its contents and to safety and health services for visitors and staff. To be consistent with budget presentations, resources associated with the Office of Horticulture and South Group Building Management are included in the tables of this chapter as part of physical plant services. These latter two organizations are supervised by the Assistant Secretary for Museum Programs.

These central administrative, financial, technical and other support services provide overall planning, policy determination, direction, and leadership to the Institution; management of its resources; and evaluation of its work. These units furnish legal counsel, financial management, public information, and other administrative, professional, and technical services required to support the Smithsonian's programs, to maintain, operate, and protect its physical plant; to perform health and safety services; and to assure that the Institution complies with all appropriate laws and regulations and is fully accountable for its actions.

Current and Projected Resources

These organization units had FY 1984 resources totaling about \$67,500,000 (including about \$15,000,000 for utility, communications, and rental costs) and 1,549 full-time employees. Of this total, approximately \$58,000,000 and 1,366 full-time employees are provided from appropriated funds and \$9,400,000 and 183 employees are allocated within the Institution's nonappropriated trust fund budget. A breakdown of resources (before application of overhead recovery) follows for FY 1984 and projected FY 1990:

<u>Subgroups</u>	<u>FY 1984</u>		<u>FY 1990</u>	
	<u>FTE</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Central Management Offices				
Federal S&E	40	\$ 1,888	41	\$ 2,041
Trust Funds	24	2,254	25	3,219
Specialized Administrative and Technical Offices				
Federal S&E	214	9,891	242	11,680
Trust Funds	146	5,919	154	7,021
Facilities Offices				
Federal S&E	1,112	46,320	1,472	64,169
Trust Funds	13	1,268	18	1,876
Total	<u>1,549</u>	<u>\$67,540</u>	<u>1,952</u>	<u>\$90,006</u>

Unrestricted trust funds are allotted to the management and support units to achieve an appropriate balance of federal appropriation and trust fund support in these units, since they serve the entire Institution. Primarily, these funds are used for personnel who perform assignments similar to those of staff paid from appropriated funds. Several support units administer unrestricted trust funds for more specialized purposes. The Office of Printing and Photographic Services receives income from the sale of photographic materials to the public. The computer center of the Office of Information Resource Management and the audiovisual unit of the Office of Plant Services operate on a cost recovery basis by charging users for the services provided.

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Major emphases of the administrative, financial, and other support offices over the planning period may be grouped in three categories: the development and maintenance of the physical plant; improvements to the management of information and continued strengthening of internal controls and accountability systems; and provision of adequate security, safety, and health systems.

The major facility event will be the completion in 1986 of the Quadrangle project now under construction with public opening of its museums and other education resources in 1987. Administrative, financial, and support costs identified to date associated with Quadrangle operations are contained in bases of the participating organizations, and are aggregated in Table 5. Shortly after completion of the Quadrangle it is anticipated that the General Post Office Building will be repaired and restored and in use for museum and other public purposes. New facilities to support basic science research and public education are projected for several of the Institution's field activities. Work will continue in the annual program to provide adequate public and support facilities for the National Zoological Park, and the Institution will be diligent in maintaining and upgrading its physical plant to guard against deterioration, to

improve energy efficiency, to provide for health and safety requirements, and assure that spaces meet Program needs. Details on the Smithsonian's capital program appear in the Facilities Planning, Construction, Restoration and Renovation chapter and the Beyond FY 1990 chapter of the Prospectus.

Efforts will continue to strengthen information and other management systems to aid in the effective and efficient support of the Institution's operations and to assure adequate control and accountability as a public responsibility. In the area of automation, an Information Resource Management Office has been established and is working on a program to identify and solve information management problems in ways that will unify processes in the total organization. Continued attention will be given to internal controls and management reviews of important areas of the Institution's work and the assessment and correction of potentially vulnerable areas of operations. Such activity will be examined by the Board of Regents and its Audit and Review Committee.

Security, safety, and health programs will receive continuing attention in both the operating and construction budgets. Guard and other security personnel will be added based on continuing surveys to meet the needs of new facilities and to provide a more acceptable level of coverage in present public and other spaces for the protection of facilities, natural areas, collections, visitors, and staff. Over the planning period, it is anticipated that the Institution's proprietary alarm system, having been installed and tested in the Museum Support Center, will be extended to other buildings on the Mall and elsewhere. Simultaneously, the program of upgrading alarm and other security equipment and devices will be completed. The conversion and elimination of nitrate film materials from Smithsonian collections for safety reasons will be completed and substantial progress will have been made in the elimination or containment of asbestos conditions. An occupational health Program for the Institution's employees will be in place.

Operating budget resources required to meet these priority objectives and to sustain adequate levels of operational support by the organizations in the administrative, financial, and other support category may approach \$90,000,000 in FY 1990 from the FY 1984 level of \$67,500,000. Detailed protections for centralized, specialized and technical, and facilities offices appear in Appendix I.

FACILITIES PLANNING, CONSTRUCTION, RESTORATION AND RENOVATION

The Smithsonian's responsibility for its museum buildings and other facilities requires a continuing program of repairs and maintenance (some of which is accomplished by staff with funds provided in operating budgets), renovations and restorations, and new construction. The objectives of this program are to provide appropriate, safe, and accessible facilities for research, education, and care of collections. Federal appropriations are the primary source of funds for this work, but, starting with the funding of the original Smithsonian Institution Building, other sources of funds have at various times become available for particular projects.

Beginning in the mid-1970s, the Smithsonian established improvement of its facilities and their operation as one of its highest priorities. This decision to emphasize building repairs and improvements through the budget process reflected the Institution's great concern for the condition of its buildings, many of which date back to the turn of the century, as well as the realization that many more millions of dollars were required each year for this purpose.

Considerable progress has been made in determining the extent to which additional facility support is required. A number of critical projects have been completed and a number of other major projects have been started. These projects include periodic work such as roof replacement, terrace waterproofing, replacing heating and air conditioning equipment, fire detection and suppression improvements, etc. These and other repair and improvement requirements are estimated currently to cost about \$143,280,000 from FY 1986 through FY 1990.

Redevelopment of the Zoological Park began in 1970 and steadily accelerated to a point where now only several improvement and exhibition projects remain. About \$39,000,000 of work will be accomplished through FY 1985 and about \$23,260,000 of work is planned through FY 1990. At the Conservation and Research Center at Front Royal, a facility master plan has been adopted which provides a renovation and development program, much of which can be accomplished in the next five years at an estimated cost of about \$7,385,000.

The Smithsonian's five-year construction program which follows is highlighted by an exciting project to develop on the Mall a new building for the Center for African, Near Eastern and Asian Cultures. In addition, programs are outlined for the Whipple Observatory, the Environmental Research Center, the Tropical Research Institute, the Air and Space Museum, the Old General Post Office Building, and Mall administrative support facilities.

Construction, Renovation and Restoration Summary
FY 1986-1990

(\$000) (Appropriated and Nonappropriated)

Construction	\$170,450
Zoo (Rock Creek & Front Royal)	41,295
Restoration & Renovation	143,280
	<u>\$355,025</u>

Construction

Quadrangle Development

Public Law 96-36 signed by the President on July 20, 1979 authorized planning for development of the Quadrangle. In FY 1982, \$960,000 was appropriated to complete planning and design for a Center for African, Near Eastern, and Asian Cultures within 4.2 acres of land bounded by the Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue. This project, including a connecting link and modifications to the Freer Gallery, is estimated to cost \$75,000,000, and is being financed equally between government and private sponsors. An amount of \$36,500,000 was appropriated in FY 1983 to allow the Institution to construct a building in the Quadrangle. Because a very favorable construction contract was awarded by the General Services Administration, the Congress in FY 1984 reduced the construction appropriation by \$8,000,000. Legislative language accompanying this reduction allows the Institution to make future properly justified requests necessary to bring this project to fulfillment.

The Quadrangle building will include exhibition galleries and supporting museum facilities for proper display of unique collections of the Museum of African Art, as well as for an expansion of collections of Near and Far Eastern art to be known as the Sackler Gallery. There will also be space for the Smithsonian Institution Traveling Exhibition Service, expanded public education facilities, as well as a much needed International Center for special exhibitions and symposia. The joining of these activities and programs in one area will enable the Institution to apply, in a coordinated fashion, its major resources to benefit millions of visitors who travel to Washington each year. It will provide, as well, an opportunity for foreign nations to present their most important cultural accomplishments to this same audience.

Completion of the Quadrangle building is expected in 1986, and opening is scheduled for 1987. In the FY 1986 budget request, the Institution is seeking restoration of the \$8,000,000 rescinded to provide for furnishings and equipment necessary for full use of the new building.

Operating costs for those units expected to occupy and support the facilities are aggregated and contained in Table 5 of this Prospectus.

General Post Office

Since 1958, when the Institution acquired the Patent Office Building, it has been interested in obtaining the General Post Office Building, which is immediately across F Street and further bounded by 7th, 8th and E Streets. Both buildings are the work of America's first native-born professional architect, Robert Mills of South Carolina, who also designed the Washington Monument and the Treasury Building. The General Post Office (the fifth oldest Federal building in Washington, D.C.) is proposed to be used for the expanding public activities of the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art now housed in the Patent Office Building.

Being assured of continued growth of collections and public programs at the Patent Office Building, the Institution has made known to the General Services Administration its long term requirement for space at the General Post Office. Located across the street and connected by a tunnel under F Street, this landmark structure would be expected to meet the needs of these three bureaus well into the next century.

The General Post Office offers space for a wide range of public museum activities such as exhibitions, the study of collections, classes and seminars. An auditorium for lectures, films, and other purposes, urgently needed by the programs in the Patent Office Building, can be created in the General Post Office Building. Conversion of the building to public use, including weekend and evening education activity, also would add significantly to the emerging cultural and art corridor along 8th and 7th Streets that has been encouraged by the Pennsylvania Avenue Development Corporation. A specific program has been developed for the use of the building by the Museum of American Art, National Portrait Gallery and the Archives of American Art. Based on this program a total project cost of \$40,000,000 has been estimated.

Preserving this historic landmark and converting it to public purposes will require a comprehensive program that must meet the special requirements of museums for fire protection and constant temperature and relative humidity in order to preserve the collections with which they are entrusted, while also providing for the safety and accommodation of visitors. Elements of such a program will include replacing the existing roof; restoring all of the original interior and exterior architectural finishes; razing the courtyard building and glass roofing the entire courtyard area; replacing the windows with thermopane glazing; modernizing all electrical and plumbing systems; providing new insulation, a vapor barrier, and a heating and air conditioning system with industrial controls; replacing existing fluorescent lighting with fixtures reminiscent of the period in which the building was constructed; and installing smoke detection and sprinkler systems along with other security equipment.

Legislation is pending to authorize transfer of the building to the Smithsonian without reimbursement, contingent on GSA securing suitable quality space for the relocation of the current occupant, the US International Trade Comm. Action on the transfer is expected the fall of 1984. In anticipation of favorable action to give the General Post Office Building to the Smithsonian, the Institution is requesting an amount of \$3,500,000 in

FY 1986 for design, and plans to request \$36,500,000 in FY 1987 to renovate, repair and convert the building for public use.

Operating costs associated with programs and maintenance when the building is in use are being examined now and are currently expected to amount to around \$4,900,000 in FY 1984 dollars. This includes \$2,900,000 and 95 staff for program curatorial support and building maintenance for the three occupants along with base funds for exhibitions, education, collection and facilities management activities. It also includes an estimated \$2,000,000 and 80 positions for protection services, operating engineers and other plant support, and utilities. In addition, current estimates for one-time equipment and moving costs approximate \$1,300,000. These projections are being refined and are not contained in Appendix I tables.

Science Facilities Development

The Institution is seeking from Congress planning and construction authorization for science facility development. Unlike prior year repair and improvement activities, current research objectives include a coordinated effort to improve science facilities commensurate with the Institution's longer range scientific expectations. These construction projects are as follows:

Smithsonian Environmental Research Center

Following a thorough program review and evaluation, the Institution on July 1, 1983, integrated the research programs of the Radiation Biology Laboratory and the Chesapeake Bay Center for Environmental Science. This merger is expected to strengthen present research activities and to afford greater efficiency and economy of administration. The former Radiation Biology Laboratory conducts basic research on the interaction of plants and sunlight and the mechanisms and processes controlled by light. The former Bay Center program conducts research on land-water relationships and ecosystems.

The Institution recently exercised an option to renew the lease for the Radiation Biology Laboratory's facilities at Rockville, Maryland, through 1985, and anticipates exercising a second option which would extend this lease through 1990. Past experience indicates that technically sophisticated laboratory space is acquired for lease only at significant expense, and with less than satisfactory results. Therefore, it is planned to consolidate the newly formed Smithsonian Environmental Research Center at the former Bay Center facility at Edgewater, Maryland, before the expiration of the lease period in 1990.

The Edgewater site includes about 2,600 acres including significant shoreline property on the Rhode estuary, marshes, forest, and former agricultural areas. Present facilities at the Edgewater site include a renovated dairy barn with a new laboratory wing addition, an education and dormitory building, and miscellaneous small buildings which provide for storage and vehicle and boat maintenance, and several trailers.

A thorough study of the Edgewater site and facilities is being conducted to determine best use of existing structures and to select an appropriate site for development of new facilities to accommodate the program consolidation. The first phase of this project was completed in late summer 1984.

An early assessment of need suggests that a modern laboratory building of approximately 60,000 square feet will be required, as well as construction of four scientifically equipped greenhouses and a wet laboratory with fresh and salt water tanks. Extensive access and utility improvements are also anticipated. The Institution is requesting \$2,400,000 in FY 1986 for planning and design and \$24,600,000 in FY 1987 for construction, of which \$1,500,000 would be for equipping the facilities. Little if any increase in operating cost above that which the two separate locations now experience is expected, and these are being estimated now.

Whipple Observatory

Further development of facilities at the Whipple Observatory near Tucson, Arizona, is required to support expanded research activities associated with the installation of the Multiple Mirror Telescope. The Observatory is located on a 4,744-acre site at the 7,600-foot level of Mount Hopkins which is controlled by the U.S. Forest Service and reached by a limited-access secondary road that originates at the observatory administrative headquarters location in Amado, Arizona.

The present headquarters site is midway between the cities of Tucson to the north and Nogales to the south and offers easy access from a nearby interstate highway for visitors and for the delivery of research equipment and supplies. On the property is a one-level school building and a residence which have been converted to office use. There are also various automotive service, repair, and storage buildings with gravel parking and driveway areas.

The school building, leased from Santa Cruz County for about 15 years, serves as the base office and staging area for mountain research activities, and includes a small, informal Visitors' Center which has been remodeled to provide displays on the history of astronomy and audiovisual presentations describing Smithsonian research.

Because the County is reluctant to continue its lease arrangement, the Institution sought and received authority from Congress to purchase land in Santa Cruz County for the permanent headquarters of the Whipple Observatory. An amount of \$150,000 is included in the pending budget request for FY 1985, although it appears that the preferred sites may be priced well in excess of available authority. The architect/engineering firm which has been hired to develop a base camp master plan has also been asked to add a review of other possible sites to its scope of work. The potential may exist for a land transfer from the U.S. Forest Service to the Smithsonian to serve as a site for this activity. Smithsonian ownership of the property would allow construction of improved facilities in a planned and coordinated fashion that would respect the integrity of the neighboring community and protect the local environment.

The proposed new base camp will consist of administrative offices, a motor pool and exhibit facility. Administrative office space will provide for purchasing, fiscal, engineering, secretarial, and public information activities. The motor pool facility will support more than 60 vehicles, including buses and heavy machinery used for road maintenance. Enclosed motor maintenance shops are required because of the weather extremes, and space is needed for spare parts storage. A warehouse is also required for the secure storage of goods and equipment going to and from the Observatory. A small visitors' center will provide for displays and briefings about the activities being conducted by the Smithsonian. Appropriate paving will be required for pedestrian walkways, driveways, parking areas and motor pool areas. An amount of \$4,500,00 is being requested in FY 1986 for the design and construction of the base camp buildings totaling 25,000 square feet along with necessary site improvements, including hardstands, walkways, landscaping, and utilities. Funds will also be used to pave the road from the nearest highway to the new base camp to provide public access. Operating costs will be assembled and reviewed in the near future.

Tropical Research Institute

The Smithsonian Tropical Research Institute (STRI) serves as a center for tropical studies carried out by the U.S. and the international scientific communities conducting in-house basic research, and is custodian of the largest protected area of tropical forest under direct United States care. To excel in each of these important functions, it is necessary to undertake over the next five years, a facilities program to address immediate needs whose detailed planning will be incorporated in a Master Plan now being prepared by an architectural/engineering firm. The first phase of this program was completed in late summer 1984.

The Institution has for many years maintained numerous wooden and other aged structures at a number of locations in Panama. Many of these buildings are inadequate to sustain modern research activities, are badly deteriorated due to tropical weather conditions, and have suffered extensive damage due to termites. In order to provide safe and adequate housing and research facilities, the Institution is requesting authorization to improve existing STRI facilities and to construct buildings that can better resist the damp climate. This multi-year program will begin in FY 1986 with a requested \$6,500,000 to construct a terrestrial laboratory at the Tivoli site in order to vacate current inadequate space at Ancon, also in Panama City, and for construction of a kitchen and dining room facility at Barro Colorado Island. The entire five-year plan is estimated to cost approximately \$12,750,000 and includes construction at the Naos and Galeta sites as well. Operating costs will be estimated in the near future.

Construction of a terrestrial laboratory would accommodate the present staff and students working in Building 235 at Ancon in Panama City. The Ancon structure, built before 1920 as a hospital laboratory, has inadequate wiring and plumbing and its hillside location precludes the development of adequate outdoor plant and animal facilities. By replacing this laboratory with a properly designed structure at the Tivoli site (the main headquarters complex), STRI could provide many of its staff with closer access to the library, increased logistical and support service efficiency, and increased security by decreasing the overall dispersal of STRI's extant facilities.

The terrestrial lab is needed to supply research facilities for approximately 12 staff scientists and 24 visiting scientists, fellows and assistants. In addition to the offices and laboratory spaces, the indoor facilities would include chemistry analytical labs, dark rooms, aquarium room, environmental control laboratory, instrument repair, computer equipment, chemical storage, reference collection storage and herbarium. External but connected to the main laboratory would be an insectary, an aviary, a Small Animal facility (for mammals, reptiles and amphibians) and a plant growing facility. Since this building would be the principal facility for the largest group of STRI scientists, it also should include a seminar space and small restaurant. The Institution is requesting \$6,000,000 in FY 1986 for design and construction of the Laboratory.

Barro Colorado Island is the most intensely studied tropical site in the world, and therefore serves as a magnet to attract scientists from throughout the globe. Facilities on the island principally date from the 1920s and 1930s and are heavily affected by tropical conditions. Accommodations must be provided on the island for both long and short term residents and day visitors. The present dining facility serves meals for up to 45 people three times a day. Current trends indicate that within two years the need will be up to 80 persons per day. The present kitchen is over thirty years old and the dining room structure dates from the 1930s. Although Restoration and Renovation funds in the amount to \$35,000 were used in FY 1984 to replace and upgrade deteriorated kitchen equipment, both buildings fail to meet the minimum modern sanitary conditions and they lack sufficient inside storage space and covered connections between food preparation and serving areas. In addition, both buildings are wooden and subject to continual termite attack and are difficult to fireproof.

The kitchen and dining room facility will be enlarged and designed to provide sanitary and efficient service to users. The design will reflect energy conservation, as well as the form, functionality and safety required of structures in the tropics. As proposed, the upper portion of the two-story dining room building will allow space for a multiple educational center. Flexible partitioning will allow it to be used for lectures, conferences, and symposia which occur at least weekly throughout the year on the island. An amount of \$500,000 is being requested in FY 1986 for design and construction of the kitchen/dining room facility.

Air and Space Museum

Because of the size of air and space craft, even early craft that could be partially disassembled, it was considered uneconomical to provide collection storage space in the Mall building. Therefore, the Air and Space Museum has continued using temporary metal storage buildings at a 21 acre site at Suitland, Maryland, acquired by the Institution for this purpose in the mid 1950's. Periodically, since acquiring this facility, additional metal buildings have been constructed to a point now where both buildings and site are filled to near capacity. Also, during these intervening years, the Suitland area has been developed intensely, making transportation of large modern aircraft to the Air and Space facility, now known as the Paul E. Garber Facility, unfeasible.

Staff of the Air and Space Museum for the past four years have evaluated potential locations at or near airports in the Washington region that could accommodate storage and exhibition structures and permit relocation of aircraft from the Garber Facility, as well as receive by air transportation new objects such as the NASA space shuttle and a Concorde. This search resulted in the selection by the Museum of the Federal Reservation at Dulles International Airport, Virginia. Preliminary and informal discussions with the Federal Aviation Administration indicate that sufficient underdeveloped acreage and general interest exists to warrant serious consideration of this location and further study and planning.

The Institution, following approval of conceptual development planning by its Board of Regents, anticipates that further feasibility exploration and preliminary planning will be pursued in the future. Beyond this stage of development, the Institution foresees that four aircraft type hanger buildings of approximately 100,000 square feet each might be constructed over a ten to fifteen year period. Amounts of \$1,200,000 in FY 1987 and \$20,000,000 in FY 1988 could be requested for design, site preparation, and construction of a first building as well as utilities and road improvements for the site. Operating costs will be estimated in the near future.

Mall Administrative Support

The present concept of an in-town Smithsonian Service Center was developed in 1975, when a number of Institution support activities located at various leased buildings in Washington were consolidated at a single leased location in 1111 North Capitol Street, to provide efficient support to museums and other bureaus principally located on the Mall. In selecting the present Service Center location, proximity to the Mall was a key factor inasmuch as the movement of personnel and museum-related objects between the Service Center and the Mall occurs at a relatively high frequency.

Support activities included in the Service Center can be characterized as being of the light industrial type. A major activity is Exhibits Central where museum exhibits are developed and constructed from basic materials such as lumber, plastic, paper, etc. Exhibits Central facilities include drafting, model construction, shops for woodworking, plastics, silk screening, painting, fabrics and welding.

Other major activities include the assembly, processing, packing, crating and shipment of outgoing traveling exhibits for the SI Traveling Exhibition Services (SITES), the receipt, storage and issue point for general office and museum and building operation and maintenance supplies and equipment, a printing and duplicating plant, the distribution center for the Smithsonian Press, and limited holding areas for museum objects from several of the museums.

With the development of a Service Center concept, the Institution leased the presently used facility at 1111 North Capitol Street. The current lease for the Service Center expires in the fall of 1991. During the term of the present lease, the building was sold to a development firm. In discussions with principals of the firm, it has been made clear to

Institution representatives that the objectives of the current owners include redevelopment of the property to a higher and better use. It is noted that the neighborhood is currently in a transition stage, moving from light industrial use to probably office building or comparable use. Quality office buildings have been constructed on North Capitol Street several blocks south of the 1100 block, with substantial indication that this growth will continue to the north in a relatively short period of time.

Authorization will be sought to design and to construct replacement space for those activities now at 1111 North Capitol Street together with those other central support activities now on the Mall which are expected to outgrow their present space or whose space may be required for museum programs. Presently, it is estimated that a Service Center of 250,000 gross square feet be required. The Institution plans to request in FY 1987 \$9,000,000 for site acquisition and design, and in FY 1988, \$18,000,000 for construction.

The Institution found it necessary about 1972 to lease office space at L'Enfant Plaza on 10th Street, S.W., about 2 blocks from the Castle building. This was occasioned by a consolidation of scattered leased spaces and the need to free up on the Mall additional space for public purposes. Presently, the Institution occupies about 55,000 square feet at L'Enfant Plaza and 12,000 square feet at Capitol Gallery located about 2 blocks from the Air and Space Museum, on 6th Street, S.W.

The Institution now is reassessing its use of all Mall and leased space, including the effects on this space resulting from occupancy of the Museum Support Center and anticipated completion of the Quadrangle project. In expectation that some leased space will continue to be required, the Institution needs to consider purchase or construction of office space near the Mall in order to reduce the longer term budget effects of continued rental escalation. In 1972, space at L'Enfant cost about \$8.50 per square foot and now costs \$20 per foot, and \$22 per foot at Capitol Gallery. Assuming that a purchase or construction cost could be amortized over a 10 to 20 year period at yearly expense not exceeding current annual rental costs, then, these rental funds could eventually be put to other program purposes. The Institution plans to request \$1,200,000 in FY 1988 and \$10,800,000 in FY 1989.

Suitland Museum Development

With the opening of the Museum Support Center, the Smithsonian realized the first step in its plan to concentrate off-Mall storage of collections on Institution-owned properties in Suitland, Maryland. Plans for further development of those properties include expansion of storage for the Museum of Natural History, and provision of similar facilities for the History and Art museums and the Smithsonian Institution Libraries.

The original plan for the Museum Support Center envisioned a need to expand the storage capacity for the housing of natural history artifacts in a secure and climatically controlled environment. The Institution projects that by the early 1990s the Museum of Natural History will require the

additional space to accommodate its continually expanding collections, and the Smithsonian plans to request \$8,000,000 in FY 1990 for the construction of the fifth pod of the MSC to meet this need.

The Institution has also identified a need to provide environmentally controlled secure storage for the holdings of the S.I. Libraries and Archives, to alleviate pressures on the space presently occupied from increasing needs for public space on the Mall and the continued growth of the collections. Both activities maintain extensive reference materials, used continually by the research staff of the Institution and shared with other scholars as well. Utilizing modern data communications systems, these materials may be retained at a remote location where environmental conditions and security measures can be maintained to ensure continued preservation of these valuable research tools. Establishment of a Library and Archival Support Center at Suitland would provide the storage and study space necessary, as well as space for the conservation of materials. The Smithsonian anticipates requesting \$9,000,000 in FY 1990 for construction of this facility.

SMITHSONIAN INSTITUTION FIVE-YEAR CONSTRUCTION PROGRAM*

CONSTRUCTION (\$000)	FY 1986 - FY 1990			
	<u>FY 86</u>	<u>FY 87</u>	<u>FY 88</u>	<u>FY 89</u> <u>FY 90</u>
Quadrangle ¹	\$ 8,000			
General Post Office ²	3,500	\$36,500		
Science Facilities Development ³				
Smithsonian Environmental Research Center	2,400	24,600		
National Air and Space Museum		1,200	\$20,000	
Fred L. Whipple Observatory	4,500			
Smithsonian Tropical Research Institute	6,500	750	2,000	\$ 3,500
Administrative Service Center ⁴		9,000	18,000	
Suitland Museum Development ⁵				
Additional storage pod				\$ 8,000
Library and Archival Support Center				1,000
Administrative Office Building ⁶			1,200	10,800
Construction Total	\$24,900	\$72,050	\$41,200	\$ 15,300 \$17,000

*Exclusive of National Zoological Park

- ¹Funds in addition to those appropriated in Fiscal Year 1983 will be matched with Smithsonian trust funds, to provide for installation of the security system; moving costs and equipment and furnishings for public, administrative and shop areas.
- ²It is anticipated that a planning and construction authorization bill could be obtained in Fiscal Year 1984, allowing for possible funding for planning and design.
- ³A science facility planning and construction authorization bill was submitted to Congress in Fiscal Year 1984, which includes base camp construction at Amado, a major laboratory building at the Tivoli, as well as improvements at other Smithsonian Tropical Research Institute facilities in Panama, relocation of the research activities of the former Radio Biology Laboratory to the Bay Center, and development of National Air and Space Museum facilities at Dulles Airport to replace its buildings at Suitland. Total estimated planning and construction cost of this package for Fiscal Year 1986 - 1990 is about \$65.5 million. Added funds would be needed for the National Air and Space Museum/Dulles project in later years of about \$45,000,000.
- ⁴A facility to replace the leased North Capitol Street administrative service center.
- ⁵These projects are planned as future increments of museum support facilities at Suitland.
- ⁶This project anticipates purchase or construction of an office building near the Mall as a replacement for current leased office space.

Zoological Park and Conservation Center

The original 1973 Zoo Master Plan included 41 projects at Rock Creek costing an estimated \$118,000,000. Since then, the program has been scaled down to 30 projects and approximately \$78,250,000 at the Zoo. This savings is due largely to the acquisition of the Front Royal site in 1975, which permitted a reevaluation of the Rock Creek development plan, eliminating many costly and space-consuming projects necessary for breeding and research. Projects that can be conducted more effectively at Front Royal will continue to be sited there and include nearly all major hoofstock breeding requirements, back-up housing for small primates and numbers of other small mammals, bird incubation and breeder functions, as well as holding facilities for long-term breeding programs. The Master Plan will be reviewed over the next year or so to reflect changes in program emphases.

Zoological Park Redevelopment

Central Area Redevelopment: Construction of the new Ape House, renovation of the Reptile House and renovation of the Small Mammal House is complete (these projects total about \$4,300,000, appropriated in FY 1980), as well as construction of Monkey Island (FY 1981 appropriation of \$1,840,000). Except for minor improvements, redevelopment of the central exhibit area is complete.

Olmsted Walk: Beginning in FY 1985, the Olmsted Walk will be reconstructed and improved, with emphasis given to preserving and enhancing the natural and historical character of the park. The exhibits along the walk will be renovated to enhance the visitor's experience in viewing the animals. New surfacing materials for the walk, adequate drainage, new landscaping and shade trees, additional benches and drinking fountains, and improved graphics will be used. These efforts will assist in unifying the exhibits and grounds, providing a pleasant and educational experience at the National Zoo. Construction is estimated at \$4,500,000 phased over a three-year period: FY 1985 (\$2,000,000), FY 1986 (\$1,000,000) and FY 1987 (\$1,500,000).

The first phase will concentrate on the section of Olmsted Walk from the Rock Creek entry up to the Small Mammal Building. This phase will create an identifiable pedestrian entrance at the Rock Creek side of the Zoo which will allow visitors a proper orientation point at the beginning of their visits. A new Gibbon facility, expanded waterfowl exhibit, enlarged lesser panda display and modified tortoise yard will be included in this phase. In addition, the main walkway will be modified to loop around in front of the Reptile and Monkey Houses by constructing a winding walkway more in line with the spirit of the original Olmsted design.

The second phase of this program will renovate the opposite end of the Olmsted Walk which starts at the entrance on Connecticut Avenue. Scheduled under this phase is the widening of the sidewalk on Connecticut Avenue, constructing a low retaining wall and the addition of landscaping on the banks which flank the Zoo's pedestrian entrance and modification to the Connecticut Avenue vehicle entrance. At the entrance to the Education Building, a plaza will be created which will include an information kiosk.

Walkways adjacent to the existing Sable Antelope, Bongo and Dorcas Gazelle exhibits will be modified to provide access to the plaza.

The final phase, scheduled for FY 1987, will modify the Walk in the area just below the Education Building to the Small Mammal Building. The walk in this area will be renovated to provide the visitor with a better view of the animals. A third entry point to the Walk will be constructed in the area near the parking lot. This plaza will have an information kiosk which will provide the visitor with information about the zoo and events of the day.

Health and Research: Renovation of the Zoo's existing veterinary hospital is scheduled for FY 1986. The mechanical systems in the building are over 15 years old and beyond economical repair. The air conditioning, heating and climate control systems will be replaced with modern equipment. The building's roof and incinerator also will be replaced. A hospital intensive care unit will be added and improvements to the surgery and radiology areas are scheduled. These changes will greatly improve clinical care for the zoo animals. An amount of \$4,300,000 will be requested in FY 1986 to support the design and construction costs.

Goats and Sheep Exhibit: A natural habitat for goats and sheep will be built south of the bird house between Cathedral Avenue and Rock Creek. The existing terrain is suited for these animals with only minor modifications. The construction of a series of exhibits in the area will permit the Zoo to exhibit these animals in attractive facilities, including some Asian species that are little known or exhibited in this country. An amount of \$60,000 will be requested in FY 1988 and \$600,000 in FY 1989 for construction.

Savannah and Plains Animals. An exhibit of prairie and plains animals will be created on the present site of parking lot "B", located north of the elephant house. The area will be viewed from Olmsted Walk. The Zoo currently does not have exhibits on flat terrain which might simulate the openness of the African Savannah. Amounts of \$100,000 in FY 1986 and \$1,000,000 in FY 1987 will be requested for design and construction respectively.

Aquatic Habitats: With funding of \$500,000 appropriated in FY 1980, plans and specifications were prepared for construction of two of four planned exhibit areas within the aquatic habitats project. These two exhibit areas will house sea otters and penguins as feature species, surrounded by smaller corollary displays such as an exhibit of fresh water organisms. An amount of \$1,200,000 will be requested in FY 1987 to complete design of the remaining two exhibit areas (manatees and education/orientation). The construction cost for the four exhibit areas making up the aquatic habitat project is estimated at \$12,000,000; a request for an FY 1988 appropriation is anticipated.

Update of Master Plan and Related Matters. The National Zoo plans to update the original Master Plan over the next year or two, to incorporate exhibitions and new program emphases. Several exhibits under consideration include an invertebrate exhibit proposed for the basement of the reptile house and consisting of non backbone animals which represent the majority of the animal kingdom and have never been exhibited at the Zoo. Consideration

is also being given to providing introductory exhibits for visitors entering from the Connecticut Avenue gate. These will feature such animals as the hardy species of penguins and the Japanese macaques. Results of this review will be incorporated into future appropriate editions of the Prospectus.

Renovation and Repairs. In addition to the redevelopment Master Plan, the Zoological Park is responsible for a continuing program of major maintenance and repair of its real property (buildings, grounds, utilities and equipment). The Zoo has 60 separate structures of which 18 are major buildings. The current plant value is over \$100 million and over \$1,000,000 will be required annually for structural, mechanical and electrical repairs and renovation of the physical plant to support the Zoo's mission at a satisfactory level.

Conservation and Research Center

Small Animal Facility: The small animal facility was designed as a three-winged building. With funds appropriated in FY 1981, the 2,200 square foot center wing, which contains all support spaces, and the 17,190 square foot east wing, which houses small animals, including marmosets, three kangaroos, dik-diks, marsupial tiger cats, tarsiers, banded palm civets, otter civets and lesser red pandas, have been completed. An amount of \$700,000 appropriated in FY 1984 will be used to construct the west wing containing 10,800 square feet of space. The west wing will be used as a breeding facility and will house various small birds such as Bald Ibis, Red Bird of Paradise, Lesser Bird of Paradise, Gardner's Bower Bird, Bornean Great Argus Pheasant, Palawan Peacock Pheasant, Jobi Island Crowned Dove and Blue Crowned Pigeon. The building also will serve as a backup holding facility for the Rock Creek collection.

Veterinary Hospital: An amount of \$1,400,000 has been received in FY 1984 to construct a 14,000 square foot veterinary hospital which is urgently needed at the Conservation and Research Center. The hospital will include x-ray and treatment rooms, surgical rooms, laboratories, a pharmacy, animal wards, autopsy and food preparation rooms and administrative and storage areas. The hospital will have a number of special requirements which contribute to the cost of construction. Among these are ceramic tile in the surgical area, lead lining in the x-ray preparation area and doors of individualized specifications in the surgery, treatment and other areas.

Maintenance Facility. The maintenance trade shops that serve the Conservation and Research Center will be consolidated into one area for improved operations, security and accessibility. A group of supply buildings will be renovated and modified to serve this function, providing a separate service entrance and parking for the Center's motor pool operations and off-site employees. Amounts of \$75,000 and \$850,000 will be requested in FY 1986 and FY 1987 respectively, for design and construction. The space vacated by the present shops will be used to house student research activities.

Large Hoofed Stock (pachyderms): This project will provide a facility to house large hoofed stock for research and breeding. The site chosen is well suited for this activity and will not be labor intensive as to support requirements. The facility will permit the zoo to pursue actively breeding

programs for such endangered groups as rhinoceroses and elephants. An amount of \$2,300,000 for design and construction will be requested in FY 1986.

Primate Facility: This facility will enable the Center to expand the variety and number of primates accommodated in research programs while providing better protection of animals from communicable diseases to which these species are highly susceptible. The building will be located in the core area, close to the small animal facility and veterinary hospital. Amounts of \$170,000 and \$1,700,000 are estimated for design and construction, and will be sought in FY 1986 and FY 1987 respectively.

Administrative Facility: This facility will centralize all administrative functions for the Center in an area near the main entrance and will establish a formal reception area for visitors as well as a central point for deliveries. Amounts of \$100,000 in FY 1989 and \$1,500,00 in FY 1990 will be requested for design and construction respectively.

Staff Housing: A number of single-family staff residences at the Center are needed to assure staff proximity to ongoing research projects and to strengthen security for the 3,150 acre facility. An amount of \$30,000 for design will be requested in FY 1990. Actual construction funds will be requested in FY 1991.

Road Improvements/Extensions. This project includes providing access to new facilities with existing roads, and extending paved roads to out-laying animal facilities. The work is expected to cost about \$660,000 and is planned for Fiscal Years 1988 and 1989.

Renovation and Repairs. The Conservation and Research Center includes 89 facilities of various types, containing approximately 236,000 square feet of space, two and one-half miles of paved roads, 20 miles of jeep trails and 30 miles of fences and all related utility systems (sewer, water, electricity). This account is used to complete necessary repairs to structural, mechanical, and electrical components of the Center's physical plant, and is expected to cost about \$700,000 per year in the end of this planning period.

(\$000's)

NATIONAL ZOOLOGICAL PARK
Construction Program
1974-1990

<u>Activity</u>	<u>1974-84</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>Repro- grammings</u>	<u>TOTAL</u>
<u>I. Master Plan</u>									
Lion-Tiger Facility	3,000 /1								3,000
Elephant/Bird House	3,130							+26	3,156
Education-Administration Building	2,500							-157	2,343
General Services Facility	7,000							+834	7,834
Lower Rock Creek Valley	3,000							-1	2,999
Beaver Valley Area	6,410							-431	5,979
Central Area	10,390							-266	10,124
Waterfowl Pond and Small Cats	520							-15	505
Aquatic Habitats	500			1,200	12,000			-1	13,699
Health & Research Facility		3,000							3,000
Holt House Renovations		1,300							1,300
Master Graphics	200								200
Entranceway & Olmsted Walk	350	2,000	1,000	1,500	60	600			4,850
Goats & Sheep Exhibits			100	1,000			1,500		660
Savannah & Plains Animals									1,100
Parking Facility									1,500 /2
Subtotals	37,000	2,000	5,400	3,700	12,060	600	1,500	-11	62,249
<u>II. Renovations, Repairs & Improvements</u>									
Rock Creek	6,180	1,050	1,250	1,400	1,500	1,650	1,800	+11	14,841
Totals, Rock Creek	43,180	3,050	6,650	5,100	13,560	2,250	3,300	—	77,090

(\$000's)

NATIONAL ZOOLOGICAL PARK
Construction Program
1974-1990
(continued)

Activity	1974-84	1985	1986	1987	1988	1989	1990	Repro- grammings	TOTAL
III. Observation and Research Center									
Development Plan									
Hoofed Stock Barn	650								650
Small Animal Facility	1,680								1,680
Veterinary Hospital	1,400								1,400
Maintenance Facility		75	850						925
Primate Facility		170	1,700						1,870
Large Hoofed Stock Facility		2,300							2,300
Road Improvements/Extensions				60		600			660
Administrative Facility					100		1,500		1,600
Staff Housing							30		30
Subtotals	3,730	—	2,545	2,550	60	700	1,530	—	11,115
IV. Renovation, Repairs & Improvements									
Observation & Research Center	4,804	450	450	600	650	650	700		8,304
Totals, Observation & Research Center	8,534 /3	450	2,995	3,150	710	1,350	2,230	—	19,419
GRAND TOTALS	51,714	3,500	9,645	8,250	14,270	3,600	5,530	—	96,509

/1 Excludes \$275,000 for planning appropriated in FY 1973.

/2 Construction is scheduled to begin in FY 1991. Actual construction costs are estimated at \$16,000,000.

/3 Excludes \$125,000 appropriated in FY 1975 under Restoration and Renovation of Buildings Account.

Restoration and Renovation

The Restoration and Renovation of Buildings (R&R) account is used to fund building repairs, alterations and improvements, as well as the construction of additions to existing facilities and minor new facilities. Substantial annual funding is required in order to assure preservation and effective operation of the Institution's buildings; to provide a safe environment for visitors, staff and collections; and to meet program objectives.

The Institution's buildings and other facilities (other than the Zoo) consist of fourteen museums and galleries (including the Quadrangle now under construction) in Washington, D.C. and New York City housing research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. Also included are facilities at Suitland, Maryland, for the preservation and storage of collections, and display of air and spacecraft; centers for biological research, conservation, and education in Panama, and on the Chesapeake Bay, in Maryland; an oceanographic research station at Fort Pierce, Florida; a center for astrophysics in Cambridge, Massachusetts, and the Whipple Observatory on Mt. Hopkins, near Tucson, Arizona; and a number of administrative, storage, reference, distribution, and other supportive facilities primarily in leased space.

Since many of the Restoration and Renovation projects requested each year require one or more years of planning and design before a bid solicitation can be issued, it is necessary to forecast and organize this work several years in advance of seeking appropriations. In the early 1970's, the Institution's annual R&R budget totaled several million dollars and has increased as of FY 1985 to a Level of about 13 million dollars. While this level of funding will continue to meet a wide range of Institution repair and improvement requirements, it is not sufficient to accomplish a number of major projects such as terrace replacements estimated at \$3 million to \$5 million each, and heating, ventilation and air conditioning system replacements that range in estimated cost from \$8 million up to more than \$26 million at the Natural History Museum.

In the past, the Institution has attempted to phase over several years projects of significant magnitude. While a number of these planned projects will continue to be phased in order to keep buildings and programs in operation, it is not practical or economical to phase these projects over, say, a five to ten year period. Such phasing would increase significantly the estimated cost and re-bidding each project each year, would be costly, difficult to manage, and extremely complex to affix responsibility and liability upon completion.

The FY 1985 R&R appropriation request of \$13,750,000 reflects the Institution's commitment to acquiring and sustaining a level of funding consistent with the size, diversity, and age of Smithsonian facilities and known work requirements. The following major projects are planned for FY 1985: roof and facade repairs at the American History Building (\$710,000) and the Arts and Industries Building (\$2,500,000); continued implementation of the fire protection master plans for the Natural History

Building (\$500,000) and the American History Building (\$200,000); continued removal of asbestos insulation located in several Smithsonian buildings (400,000); continued implementation of heating, ventilating and air conditioning and energy conservation improvements in the American History Building (\$1,800,000); and implementation of an energy conservation plan at the Air and Space Museum (\$250,000); renovation of Building 19 at the Paul E. Garber Facility in Suitland, Maryland (\$660,000); construction of an annex for the Anacostia Neighborhood Museum at Fort Stanton (\$400,000); construction of a dormitory at the Tropical Research Institute's Barro Colorado Island site (\$825,000); and continued renovation to various buildings to accommodate the proprietary security system.

General Repairs and Improvements. Funds requested in this category support projects that do not lend themselves to discrete categorization, as well as minor emergency repairs, such as equipment failures or structural defects that cannot be anticipated and that arise from heavy use, extreme weather conditions, or other circumstances. Examples of projects in this category are interior repairs to floors, ceilings, partitions, doors and building hardware; space renovations which would create additional or more effective space for program activities; renovations of exhibition and other public space; repairs to roads and walkways; elevator and escalator repairs; the lighting improvements. A total requirement of approximately \$6,140,000 is anticipated for this planning period.

Facade, Roof and Terrace Repairs. Maintaining the integrity of the exteriors of all Smithsonian buildings is critical to preventing major structural damage and deterioration due to age and weathering, and to ensuring a safe environment for visitors, staff, and collections. Energy conservation also demands water and weathertight exteriors. Work in this category includes a variety of major projects, such as roof replacement, repointing and recaulking facades, plaza resurfacing, exterior painting, and window repairs. Requirements that fall under this category of repairs have become apparent in some of the Institution's newest buildings as well, and must be corrected. In addition to major projects, a scheduled program of maintenance and upgrading to protect building exteriors must be performed annually.

Work is continuing on the renovation of the exterior the Arts and Industries Building. Completion of the roof replacement, repointing of the masonry facade, extensive window replacement, and replacement of gutters and downspouts is expected in early 1987. Funds of \$6,430,000 appropriated since FY 1981 are being used to continue exterior restoration on a quadrant-by-quadrant basis. Amounts of \$1,500,000 and \$250,000 will be required in FY 1986 and 1987 respectively, in order to complete this project.

Progress is being made in the renovation of the facade of the 120 year old Renwick Gallery Building. The Institution received approval from the Commission of Fine Arts and the Joint Committee on Landmarks for the use of precast concrete in lieu of natural stone to assure that the eventual repairs will provide a permanent solution to the problem while maintaining sensitivity to the building's status as a National Historic Landmark. An amount of \$5,450,000 has been appropriated through FY 1984 and the sum of \$500,000 requested in FY 1985 will be used to complete this project.

Additional projects scheduled during this planning period include replacement of terraces at the Air and Space Museum and the Hirshhorn Museum, completion of roof replacement at the American History Museum, facade repairs and roof replacement at the Natural History Museum, skylight and roof repairs at the Freer Gallery and facade repairs and window replacement at the Smithsonian Institution Building. This and other work is expected to cost approximately \$19,345,000 between FY 1986 and 1990.

Fire Detection and Suppression System. The Institution is continuing to develop and implement plans for upgrading fire protection systems in all buildings in order to provide a level of safety consistent with today's standards and technology. Work in this category includes such items as the installation of heat and smoke detection systems, sprinkler and chemical suppression systems, and fire doors and walls. Improved systems are installed as exhibitions are changed, and fire retardant materials are used wherever possible.

The implementation of comprehensive fire protection master plans is in progress at both the Museum of Natural History and the Museum of American History. Construction includes the installation of upgraded sprinkler systems, new smoke detection systems, fire pumps, generators and control panels, and architectural modifications to create more efficient fire zones. A total requirement of approximately \$8,405,000 is anticipated for this planning period, of which about \$5,000,000 will be required for the Museum of Natural History and American History. Other fire protection projects planned for the next five years include the installation of additional sprinklers and smoke detectors in the Smithsonian Institution Building, installation of fire zones, emergency lighting and a smoke detection system at the American Art Museum and the Portrait Gallery. In addition, a fire protection master plan will be developed and implemented for the Air and Space Museum, and the master plan for the Arts and Industries Building will be revised to reflect changes in space use.

Access for the Disabled, Safety and Security, and Correction of Hazardous Conditions. Substantial progress has been achieved in eliminating architectural barriers at Smithsonian buildings. Several Smithsonian facilities still require additional modifications to meet recently updated standards for disabled person access. These projects are scheduled to be accomplished during this planning period.

The elimination of exposed asbestos insulation located in several buildings continues to be a high priority. An amount of \$400,000 is included in the FY 1985 budget request for this purpose, and approximately \$2,500,000 will be applied to the correction of this problem between FY 1986 and FY 1990.

Other projects in this category include completion of construction and installation of the new proprietary security system, replacement of tile in the Great Hall of the American Arts/Portrait Gallery Building; entrance modifications at the Natural History Museum; emergency telephone and lighting systems at the Air and Space Museum; and security lighting in the Mall. The total required during the planning period is approximately \$7,305,000.

Utility Systems Repairs and Improvements. Upgrading the heating, ventilating and air conditioning (HVAC) equipment and controls in Smithsonian facilities will contribute, more than any other factor, to the reduction of energy consumption. The HVAC systems in most buildings were designed with neither the goals of current energy standards nor the advantages of technologies that are now available. Major improvements are required, as well as minor maintenance and repairs, to achieve energy efficiency, to ensure reliability of existing systems, and to maintain environmental conditions necessary for the protection of the collection. Equipment requiring upgrading or replacement includes such items as air handlers, chillers, pumps, coils, fans, compressors, cooling towers, electronic controls, and exhaust and filtration systems. This category of work also includes associated electrical and plumbing repairs and improvements.

Based on the results of study and design efforts, major HVAC renovation projects and energy conservation improvements are planned for the next five years at the Natural History (\$21.9 million), American History (\$6.3 million), Arts and Industries (\$11.9 million), and American Art/Portrait Gallery Buildings (\$5.9 million). Energy conservation improvements also will be made at the Hirshhorn (\$1 million), the Renwick Gallery (\$3.3 million), the Cooper-Hewitt Museum (\$3.8 million), and the Air and Space Museum (\$1.7 million). Renovation of the electrical wiring in the Smithsonian Building will continue and improvements will be made to the lighting in the Great Hall and Lounge.

In response to the increasing need for automation of Smithsonian offices and for access to data base management systems, as well as projected uses in the near future of additional computer and electronic services for research, collections management, education and exhibition purposes, the Institution has developed a plan to interconnect the systems through a common communications pathway or master raceway system. Installation of such an interconnecting system will significantly reduce the costs of independently connecting individual systems as they are needed for various purposes, but will also provide a higher degree of interaction among the different kinds of systems, including data and word processing systems, sensing systems for energy management, an expanded telephone system, telexes and facsimile machines, and video systems for exhibits and educational purposes. The Institution is requesting \$825,000 in FY 1986 to begin installing a raceway system within and between eight buildings in the Mall area which will accommodate electronic requirements anticipated over the next ten years. An additional amount of \$10.37 million is expected to be sought through FY 1990, in order to extend the raceway into each of the eight buildings, to each work station, office or exhibit area.

Projects in the utility systems category are estimated to cost \$69,290,000 from FY 1986 through FY 1990.

Other Projects: Included in this category are space modifications and renovations to accommodate changing program requirements, sometimes in conjunction with major roof and HVAC projects or other construction activities that offer improved office and collections storage space conditions. Renovations are projected during the planning period at the Museum of American History, the Museum of Natural History and the Arts and Industries Building

to take advantage of additional space available for program use by reduction of space needed for utility and mechanical systems and the expansion of program activities into new facilities, such as the Museum Support Center, Quadrangle and General Post Office Building. Also included in this category are projects at Suitland to modify metal storage buildings for collections management purposes, construction of a dormitory at the Whipple Observatory, greenhouse facilities and a day care center. Advanced planning funds will also be requested to enable the Smithsonian to prepare better cost estimates for future projects and to reduce the effects of inflation on construction costs by providing design capability prior to receipt of project appropriations. Total R&R requirements in this category are estimated at \$32,795,000 through FY 1990.

A more detailed and comprehensive listing of R&R appropriation requirements by facility is contained in the Institution's FY 1985 and FY 1986 Budget Request.

RESTORATION, RENOVATION & OTHER CONSTRUCTION

Fiscal Years	1985	1986	1987	1988	1989	1990	Totals FY 1986-FY 1990
<u>RESTORATION & RENOVATION</u>							
General Repairs & Improvements	\$ 545	\$ 545	\$ 2,425	\$ 900	\$ 1,660	\$ 610	\$ 6,140
Facade, Roof & Terrace Repairs	4,450	4,375	3,170	6,000	3,000	2,800	19,345
Fire Detection & Suppression	1,465	1,970	2,155	1,505	1,500	1,275	8,405
Access for Disabled, Safety & Security & Correction of Hazardous Conditions	1,215	1,110	2,415	1,455	1,435	890	7,305
Utility System Repairs & Improvements	2,785	6,605	9,460	14,830	20,665	17,730	69,290
Other Projects	3,290	10,020	7,305	4,700	3,600	7,170	32,795
TOTALS	<u>\$13,750</u>	<u>\$24,625</u>	<u>\$26,930</u>	<u>\$29,390</u>	<u>\$31,860</u>	<u>\$30,475</u>	<u>\$143,280</u>

BEYOND FY 1990

There is merit to looking further ahead than just five years in communicating to OMB, Congress, and others the Institution's operating and capital objectives and in planning for resource levels to match the Smithsonian's basic growth aspirations. The Smithsonian must look ahead ten to fifteen years if it is to continue to be successful in meeting its responsibilities to the public, the museum and scholarly communities, and the nation. This chapter presents a brief summary of longer-range possibilities based on existing institutional policies, and projections to about FY 2000.

Emphasis on research, exhibition, collections management, and other basic programs, of course, will continue. Quality activities and services for the visiting public and Associate members are other basic aims and will be stressed. New buildings, where necessary, and careful attention to those now under the care of the Institution, require longer-range thinking if results are to be useful to the public. The most effective use of available federal and trust resources in achieving general objectives will continue to motivate overall management planning. As the planning period is extended, however, it becomes increasingly difficult to detail the varied opportunities and related management choices which will emerge. Nevertheless, it is possible to set down institutional desires, directions, and resources which can be realized if conditions external to direct management control permit. In interpreting materials contained in this chapter, it is important to highlight the following.

- . A generally favorable economic situation is assumed to prevail over time. The Administration is predicting that inflationary pressures on the nation's economy will continue to lessen. For purposes of describing institutional plans beyond 1990, inflation is assumed to have only minimum influence.
- . Essential levels of appropriations for capital and operating projects as outlined in the preceding chapters for years FY 1986-1990 will be forthcoming from the Executive and Congressional branches of government.
- . Visitation will remain strong.
- . Public acceptance of the Institution's various programs and products, and supporting trust funds generated through investments' Associates and auxiliary activities will continue to allow net proceeds to grow moderately and to be applied to Smithsonian objectives as approved by its Board of Regents.
- . Future transfers to the Institution of historic buildings that might be preserved for Smithsonian use are possible, but the timing is not known. Likewise, it is not possible

to speculate on the availability of major new gift collections that might require special housing for display or other purposes.

Given these general assumptions, Smithsonian management predicts continued success through the turn of the century in developing resources to serve the public and the nation through its varied programs.

Program Expectations

With regard to longer-run developments in programs, the Institution's activities have always spanned national and international interests, but in future years its multinational character should begin to flourish in an even greater fashion, and, in keeping with longer-run natural and cultural forces, help lead to a more singular world community.

The construction of the Quadrangle, now planned for completion in FY 1986-1987, is basically an effort to provide the Institution with appropriate and sufficient space to display the great art and history collections of Near and Far Eastern and African cultures. In the ensuing years, its programs will provide a window on the Mall for cultures now representing two-thirds of the world's population, spanning an area from Japan, through Asia, the Middle East, and Africa. The roots of these cultures run deep, and the contributions to man's development from these areas have been and will continue to be a pervasive force in the world. The Quadrangle and its programs will promote the long-run causes of international peace and understanding. While the content of the Institution's longer-range exhibition programs, as in the past, will focus on historical events important to the development of the nation, of Man and his culture, and be based on the latest findings and interpretations of the international community of historians and scientific investigators, in general, exhibitions can be expected over time to take on more of an international flavor, reflecting the interdependence of nations in pursuing essentially common cultural and humanistic goals in a world of limited natural resources.

The Institution expects to apply increasing emphasis to its research programs, especially in collections related areas and where it has developed considerable expertise such as basic taxonomy and systematics, monitoring the effects of long-term environmental change, examining the basic components of matter, studying the universe, and expanding knowledge of animal behavior. Research endeavors expected to be more thoroughly cultivated and developed include archeometry, species conservation and propagation, and man-related disciplines. The rapid development of new techniques and fabrication of new instruments in the field of astrophysics now opens the possibility of constructing telescopes to see in regions previously limited by technology. The Astrophysical Observatory is particularly interested in submillimeter wave lengths, perhaps the "last frontier" for ground based astronomical observations. As a part of its longer-term research agenda, the Smithsonian may indeed be more of a focus for the activities of some of the American overseas research centers whose research interests align with those of the Institution.

Improvements to all aspects of managing collections is another long-term concern, including continuation and updating of the comprehensive inventories, security mechanisms, and loan processing arrangements, the development of automated information systems, and the conservation and preservation of artifacts and objects for research and display purposes. The Smithsonian will always have major responsibilities directed to the preservation and care of collections. Objects made by man, or collected by him from nature, are the tangible products of his historically persistent struggles to comprehend and live with his environment, extend his mastery over it, improve his condition, and express his spiritual aspirations. The collection, interpretation, preservation, and transmission of knowledge related to important objects is essential if this and future generations of people are to measure and understand the character of international cultural and natural change.

The programs which will be housed at the Museum Support Center building will be fully operational by the mid-1990s. The facility and its programs were fundamentally conceived more than a decade ago to provide space, laboratories, training areas, and equipment, all designed for the efficient storage, study, care and preservation of collections. In a visible fashion in future years, the Center and its operations represent the Institution's commitment to apply the most advanced research, conservation and preservation techniques known to minimize the unavoidable toll of time on the products and discoveries of Man, and to allow them to be passed on as a resource for future research and exhibition.

Educational programs and services to the public, including classes, publications and other media activities, are expected to grow in number and variety. They will be adapted in a style and format which will be in keeping with the changes that will be taking place in television and communications technologies. Also, 1992 will mark the quincentennial anniversary of the discovery of America by Christopher Columbus. The Institution will celebrate this event with exhibitions, lectures, symposia and other events.

Operational Funding Operations

With regard to federal funding growth associated with operations, the Smithsonian expects to keep abreast of inflation; obtain the necessary resources to implement its programs being planned for the Quadrangle and Support Center; experience some continued moderate increases for collections related or other research, exhibit, and other program opportunities as they arise; and to maintain an appropriate balance of funding for its science, history, art, and other major operating interests.

Essential levels of S&E operating resources through FY 1990 are projected in earlier chapters as approximating \$290,000,000¹. For illustrative purposes, even using a four percent annual growth figure to cover inflationary cost increases and program requirements (beyond those which can reasonably be supported through reallocation of base funds), the Institution would be operating at an appropriation level approaching \$430,000,000 in

¹Projected level of S&E resources required excluding future year legislated pay increases.

FY 2000. A federal operating level of this magnitude seems incomprehensible when viewed from today's perspective. This figure, however, is conservative, and a genuine indication of what could happen.

As in federal operations, the basic approach regarding long-range trust prospects is a conservative one. Sustained moderate growth in the Institution's endowment is a high priority now and will continue to be throughout the foreseeable future. During FY 1975-1983, pursuant to the Board of Regents' policy of increasing the Institution's endowments, the market value of endowments in restricted and unrestricted areas grew from around \$42,000,000 to over \$120,000,000 as a result both of gifts and transfers to these funds, as well as sound investment. Assuming a comparable economic climate and sound management investment choices, that performance should continue. It is planned that a prudent portion of the Institution's net revenues will continue to be added to the unrestricted endowment and that gifts for restricted purposes will also continue.

Overall, by the turn of the century, if trust revenues are sufficient to offset the effects of inflation, the Institution hopes to be able to increase its net earnings from auxiliary and business-related activities to over \$30,000,000. The pattern of applying unrestricted net funds throughout future years to institutional operations is expected to be much the same as now: to enhance endowments; to fund Board of Regents' approved Programs in research, fellowship, exhibition, and education areas; to enhance program activities with the museums and bureaus; and to support central institutional administrative requirements.

Grants and Contracts

Grants and Contracts from the federal government have been a significant source of funds for Smithsonian contributions to scientific and cultural advances almost since the Institution's establishment. Government interest in support of the national basic research enterprise may never again reach the intensity recorded in the 1950s and 1960s, simply because of limited resources for higher educational institutions, research laboratories, and establishments such as the Smithsonian. Nevertheless, the federal government cannot neglect basic research, and must continue to support and stimulate through the grant and contract mechanisms quality investigations into selected areas. The Institution has distinguished itself in various research disciplines, and intends to continue to do so over the long run, partially through sustained grant and contract work received from the federal government, as well as its other sources of funding.

Foreign Currency Program

The Smithsonian has conducted programs with excess foreign currency funds since 1965. Foreign currency projects, consisting of grants to American institutions of higher learning, including the Smithsonian itself, museum professional exchanges, and occasional restoration projects of international importance such as the Temple of Philae in Egypt, Moenjaddaro in Pakistan, have occurred in most of the excess currency countries. The results have been amply reflected in publications, conference presentations, and exhibits, and in sustained scholarly relationships. The countries where

excess currency projects could be funded were eleven, and are now reduced to four. Opportunities may be limited over the longer run if presently available currencies diminish even further. While the international context changes periodically, the Smithsonian expects its program to remain active as long as currencies are available. By forward funding certain high-priority efforts, it is expected that activities will continue forward beyond the period when countries are no longer on the excess list.

Buildings and Facilities

At the end of FY 1984, the Smithsonian occupied approximately 4,500,000 square feet of building space, owned or leased, for all purposes in facilities located in Washington and elsewhere. By FY 1990, with the occupation of the planned Quadrangle facility in FY 1986, and the essential completion of planned facility work for the Zoological Park in Rock Creek, the Front Royal Conservation Center, and other institutional research and administrative facilities, space occupied by the Institution will approximate 5,500,000 square feet. By FY 2000, if the Institution continues to be successful in planning and accommodating its major space objectives, space available might approach 7,000,000 square feet. Implicit to the projections beyond FY 1990 are the following general institutional objectives:

- . Consolidation of program, administrative, and support operations into Smithsonian-owned facilities on properties controlled by the Institution or the federal government, and the minimum reliance on leased or rented locations.
- . Continued phased development of the Suitland and Front Royal properties for controlled warehousing, preservation, conservation, and study of the collections and propagation of endangered species.
- . Acquisition of a building or site convenient to the Mall to accommodate light, industrial-type operations for technical and administrative support of museum operations.

Smithsonian rentals at today's rates from all sources of funds now cost about \$3,000,000 annually. Primarily, these are for research, collections management, and support purposes. About two-thirds of these costs are represented by activities in the Washington, D.C. area, and the balance by field activities, principally the Astrophysical Observatory. Substantial consolidation of space holdings took place in 1972-75 in the Washington area to obtain more appropriate and efficient space, to simplify logistical support, and to avoid sizeable rent increases. Four leased buildings were vacated over this period with many operations being relocated to a singled leased facility at North Capitol Street.

This consolidation process should continue and other rental locations, including North Capitol Street, are factored into our long-range consolidation plans. Included are the Anacostia Neighborhood Museum; the Radiation Biology Laboratory; the Astral Building in L'Enfant Plaza which contains the

offices of several support and program functions such as internal audits, accounting, and folklife programs; and the Cambridge headquarters of the Astrophysical Observatory. The presence of the Support Center and Quadrangle facilities affords opportunities to examine space in other buildings, primarily the Natural History and Arts and Industries Building, as resources to meet a portion of needs now met in expensive rental space.

Institution facility requirements will be restudied at appropriate intervals and management is not presently committed to any FY 1990 or beyond planned building configuration or schedule for appropriations and construction. The Suitland location, however, seems ideal for fulfilling many of the Institution's consolidation and collection management objectives. The building recently opened at Suitland permits the Institution to meet many collections storage needs primarily in the natural history area, and establish training and other conservation program space. A subsequent phase of development at Suitland would alleviate emerging collection storage pressures in the other bureaus. After 1990, as currently envisioned next development steps for the Suitland properties include an additional pod for the current building, a storage and laboratory building for the history and art functions, and a central facility for the libraries.

Zoological Park. Development of the Zoological Park's Rock Creek parking facilities are currently envisioned for beyond FY 1990. The parking facilities project will be reevaluated to determine when it might best be accomplished. The development plan for the Conservation and Research Center at Front Royal is being reviewed with a number of projects anticipated beyond FY 1990. Over the years, R&R funds will be sought for the Conservation Center for such items as installation of utilities and access roads, security buildings, staff housing, maintenance and other facilities.

Anacostia Neighborhood Museum. Presently, the Museum's administrative staff and exhibition space are located in a leased building that is unsuitable for long-term occupancy. A second, small building is to be constructed over FY 1985 on federal land in Anacostia adjacent to the present Exhibits Lab building at Fort Stanton Park. This will allow the Institution to vacate the leased property. Planning for a new and modern museum building will be started during this planning period. At this time, this project is tentatively scheduled for beyond FY 1990.

Astrophysical Observatory. The Smithsonian Astrophysical Observatory depends entirely upon rental space for its activities in Cambridge, Massachusetts. An Observatory-owned facility at Cambridge could offset long-term escalating rental costs and provide additional benefits of consolidation of locations and increased space. A research and support building programmed for construction sometime after FY 1990 would accommodate the Astrophysical Observatory's requirements, and must be considered.

Cooper-Hewitt Museum. The Institution currently is exploring ways to make maximum use of the land and space available for Cooper-Hewitt operations. Under consideration is a tentative plan which would allow a new wing to be constructed at some future date on the parking area adjacent to the Carnegie Mansion and behind the Miller townhouse. Once erected, this phase would be followed by renovation of the townhouse and reorganization of the

Carnegie Mansion. The new building would add substantially to the Museum's capabilities for special changing exhibitions, and allow the Carnegie Mansion to house the Museum's permanent collections and exhibitions. It is too early to make judgments on the ultimate configuration, dimensional possibilities, and potential construction timetable, but a fund raising effort is beginning.

Mall Site. The property bounded by Third Street, Maryland Avenue, Fourth Street, and Jefferson Drive has been reserved by Congress for the future public use of the Smithsonian (P.L. 94-74, approved August 8, 1975). There are currently no plans for the development of this site, but the Institution will continue to consider potential use of the land for establishing a last major Smithsonian Mall museum. In the meantime, it is expected that the site will continue to be used for temporary exhibitions and other purposes by federal and other organizations.

Mall Visitor Access. The Institution will continue during the present five-year cycle and beyond to strive to improve visitor access to all Mall museums and monuments. This includes enhancing present public transportation to and around the downtown area and, in the foreseeable future, providing adequate parking for visitors who will drive to the Mall area.

Air and Space Museum. There exists a long-term need for a storage and preservation facility for large air and space craft. The museum visitor of the next century will be as interested in the Space Shuttle as the scholar or visitor of 1984 is in the Kitty Hawk flyer. Included during the five-year construction program for FY 1986-1990 is a hanger-like building proposed to be constructed adjacent to Dulles Airport as an initial phase of this project. In later years, beyond FY 1990, it is currently envisioned that perhaps additional structures of this type could serve this purpose.

Additionally, the Institution will actively support efforts by the Woodrow Wilson International Center for Scholars to acquire appropriate new quarters. The Smithsonian is also considering a collaborative project with the U.S. Postal Service which wants to support a National Postal Museum, possibly in the Washington City Post Office Building. The scope of this project is not known at this time.

Maintenance and Improvements of Buildings. The Institution currently occupies many older buildings of cultural and historical importance to the nation, such as the headquarters Castle Building, the Arts and Industries Building, the Old Patent Office Building, the original Corcoran Art Building, and the Barney Studio House. As time passes, these buildings will require added resources to assure their preservation and continued usefulness to the public and the Institution. In addition, many buildings of more recent construction will begin to require more attention.

At the present time, the Institution is devoting about \$9,000,000 to \$14,000,000 of federal funds annually to the renovation and restoration of its buildings, exclusive of utilities, custodial care, and basic maintenance provided through the operational budget. The annual figure fluctuates somewhat, but the Institution foresees a need to increase its renovation and restoration efforts to about \$25,000,000 to \$30,000,000 per year during the next five-year period. Management will make periodic assessments of the

adequacy of this level of funding and, within the framework of future years' available renovation and restoration funds, the Institution will continue to make improvements at various locations. Included among these are such items as expanded tropical research facilities and improvements to the Barro Colorado Nature Monument under the supervision of the Tropical Research Institute in Panama and the Astrophysical Observatory's continued improvement of the Whipple Observatory and other sites. Beyond FY 1990, renovation, restoration, and modifications to existing space in Mall and other buildings for exhibitions, research programs, access by the handicapped, safety and health, and general preservation of historic facilities will continue to be among the highest priorities of the Smithsonian..

If these improvements and additions to the Institution's physical plant occur, there will, of course, be related operating costs for necessary personnel, utilities, equipment and other items, to be funded largely through the federal appropriations process. While some operating and equipping needs have been estimated through FY 1990 for the Quadrangle, the General Post Office, and facilities associated with the Zoological Park, it is too early to speculate about similar resources related to longer-range building possibilities. This will be done, however, as plans become firmer and as the time horizon shortens to the three-to-five-year period usually associated with legislative, appropriation, and construction cycles for physical plant additions.

As refinements are made to the Institution's long-range construction and operational aspirations, Congress, the Executive Branch, and other constituents will be kept fully informed through every means of communication, including the Prospectus.

QUADRANGLE:
ESTIMATED RESOURCES
ASSOCIATED WITH PROGRAM
AND SUPPORT OPERATIONS¹

(\$000)

<u>Activities</u>	<u>FY 1986</u>	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>
Program Operations ²					
Federal	\$ 6,186	\$ 6,744	\$ 6,738	\$ 7,222	\$ 7,583
Trust	20,448	22,147	22,799	23,786	24,874
Support Operations ³					
Federal	1,978	3,806	3,374	3,392	3,392
Trust	-	-	-	-	-
Utilities	500	700	735	772	881
Totals					
Federal ⁴	\$ 8,664	\$11,250	\$10,847	\$11,386	\$11,856
Trust ⁴	\$20,448	\$22,147	\$22,799	\$23,786	\$24,784
	\$29,112	\$33,397	\$33,646	\$35,172	\$36,640

¹This table is meant to provide an overview of operational costs of those program units that will be occupying the Quadrangle, plus building and ground maintenance, utilities, some support for central offices, and trust operations. Not included are Freer Gallery of Art operations since base funds are not directed to Quadrangle activities.

²Program operations include the Museum of African Art, the Sackler Gallery (part of the Center for Asian Art, along with Freer Gallery) National and Resident Associate Programs, the International and Education Centers, and the Traveling Exhibition Service.

³Support operations, for purposes of this table, include costs for protection and security, building and grounds maintenance, libraries requirements, exhibits central, accounting, personnel administration, and plant operations.

⁴Additional resources for operations and support will be raised from trust funds and donors to augment programs and selected activities in dollar amounts that cannot be estimated at this time.

APPENDIX I

APPLICATION OF SMITHSONIAN OPERATING
RESOURCES FY 1984 AND PROJECTED THROUGH
FY 1990 BY ORGANIZATION

NOTE: The brief descriptions by bureaus cover facilities construction, restoration and renovation projects as well as operational plans, while the dollar projections pertain only to federal or trust operational expenditures. For further information on projected facilities project costs see the Facilities Planning, Construction, Restoration and Renovation Chapter.

SCIENCE

Assistant Secretary for Science. Administration of Science programs rests with this Office; guidance, planning, and overall policy direction for scientific research efforts and science related education and exhibition activities are provided through the Assistant Secretary.

Office of Educational Research (SOER). During the planning period efforts will be directed to increasing staff size to capitalize on the growing national interest in informal education. Programs will be directed to achieving a better understanding on how and why people learn in out-of-school settings, utilizing museums, zoological parks, etc. as models. Emphasis will also be given to preparing education materials for family groups, teachers and others on science-related topics. It is anticipated that a non-technical newsletter will be developed to assure that information generated by SOER research will be disseminated to interested lay public and relevant professionals.

Museum of Natural History/Museum of Man (NMNH/NMOM). The transport and conservation of collections to be housed at the Museum Support Center will be emphasized over the next five years. Continuing efforts will be made to refine the recently completed collections inventory and to retrieve data from objects for use by scholars and the public. The planning period will be a time of continuing improvement in exhibit activities, focusing on the Evans Gallery for temporary exhibitions and an accelerated renovation schedule for the Museum's twenty-eight permanent halls. Greater concentration will be placed on improving educational activities so that the Museum can enhance the learning experience of its more than six million annual visitors. Infrastructure improvements important to the conduct of research will be realized; a scheduled equipment replacement program is planned to improve the scholarly capability of the Museum. Increased use of computer and word processing tools will increase productivity. Continued research emphasis will be placed on threatened or stressed ecosystems and two of the possibly larger initiatives will entail a biological inventory of the coastal regions of Panama in relation to a possible new sea-level canal, and a biological survey of the United States. Additional attention will be given to Native American studies. Interdisciplinary studies involving collaboration with Smithsonian units and outside scientific organizations will continue to be stressed and developed.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 6 (1)

SCIENCE	FY 1984		FY 1985		FY 1985		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR SCIENCE														
FEDERAL SALARY & EXPENSES	10	370	10	389	10	389	10	389	10	389	10	389	10	389
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	69	1	102	1	99	1	100	1	101	1	102	1	103
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	18	0	21	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	90	0	130	0	100	0	125	0	125	0	125	0	125
FEDERAL GRANTS & CONTRACTS	2	306	2	238	2	225	2	232	2	239	2	246	2	253
-SUBTOTAL	13	853	13	890	13	854	13	847	13	855	13	863	13	871
OFFICE OF EDUCATIONAL RESEARCH														
FEDERAL SALARY & EXPENSES	5	175	5	179	5	178	6	228	7	278	2	278	7	278
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	6	1	48	0	8	0	8	0	8	0	8	0	8
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	12	0	4	0	13	0	6
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	2	34	2	145	2	80	2	117	2	126	2	135	2	145
-SUBTOTAL	7	215	8	371	7	266	8	365	9	416	4	434	9	437
MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN														
FEDERAL SALARY & EXPENSES	504	18385	504	20270	514	21329	533	23764	541	24120	551	25548	555	23238
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	438	0	47	0	30	0	30	0	10	0	10	0	10
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	225	0	240	0	232	0	197	0	204	0	214	0	224
RESTRICTED	7	1776	6	1884	6	1857	6	1949	6	2272	6	2220	6	2314
FEDERAL GRANTS & CONTRACTS	41	1904	42	2546	36	1652	36	1842	36	1866	36	1891	36	1917
-SUBTOTAL	553	23229	552	24987	555	25100	575	27782	585	28472	593	27883	597	27703

Astrophysical Observatory (SAO). The major instrumental theme for research during the planning period will be based on increased resolution both spatially, via interferometry, and spectrally, in all accessible wavelength bands. In keeping with this theme, a submillimeter interferometry instrument is planned. Submillimeter wavelengths represent the last frontier field; the only part of the electromagnetic spectrum yet to be exploited in astronomy. Detectors at wavelengths from X-ray through submillimeter are critical components of SAO's research theme and development and test of improved detectors will be pursued. Improvements are also scheduled for the telescopes at the Fred L. Whipple Observatory and in the facilities, i.e., a new base camp. An essential ingredient for SAO scientists to keep in the forefront of astrophysical research is modern equipment and a program of replacement and improvement of laboratory and computer equipment is planned. Over the period, the Observatory will be helping to improve the teaching of science and mathematics to pre-college students by developing educational materials and engaging student interest, taking advantage of the apparent universal attraction of the young to astronomy. SAO also will address and correct the serious shortage of support personnel which is hampering scientific productivity.

Tropical Research Institute (STRI). During the planning period STRI anticipates strengthening its position as the principal center for studies in tropical biology by selective staff additions in the areas of Biochemical Evolution, Limnology, Marine Plankton and Soil Ecology. To assist the research efforts additional support staff including technicians, a manuscript preparator, artist/illustrator and launch operator are needed. Educational and conservation activities will continue focusing on the unique features of the Barro Colorado Island Nature Monument. In addition, STRI will continue to make its resources available to organizations of the host country and other institutions to assist in programs of nature conservation and development. An important corollary of this work is the training of third-world students in tropical biology. To effectively support existing programs and enhance new initiatives, facilities modernization will be undertaken during the planning period involving principal STRI sites, Naos, Galeta, Tivoli and Barro Colorado Island.

Environmental Research Center (SERC). During the planning period the Center will strengthen its research program and refocus its priorities to take advantage of the features of the 2600 acre estuarine field research site at Edgewater, Maryland. Research emphasizes the measurement of physical, chemical, and biological interactions in the environment and the determination of how these interactions affect the growth, maintenance, and succession of plants and animals. The addition of a quantitative ecologist is planned. A master plan for site use is near completion, and a new laboratory building is contemplated at the Center's Edgewater site to include staff now housed in leased space at Rockville. To coincide with the opening of the new laboratory facility, some increased technical and maintenance staff will be required. Educational activities will remain stable during the period and focus on increasing public awareness of the value of understanding the processes occurring in the Chesapeake Bay and in estuarine systems and how best to maintain them in a healthy condition.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 6 (2)

SCIENCE	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASTROPHYSICAL OBSERVATORY														
FEDERAL SALARY & EXPENSES	97	7652	97	8708	100	9208	124	11719	131	13608	155	15748	161	15976
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	43	2053	43	2271	43	2491	43	2551	43	2631	43	2711	43	2796
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	2	130	2	135	2	140	2	144	2	148	2	152	2	156
-ALL OTHER	0	315	0	333	0	369	0	406	0	447	0	492	0	541
RESTRICTED	1	220	1	198	1	156	1	157	1	157	1	160	1	172
FEDERAL GRANTS & CONTRACTS	101	12059	99	12424	120	15681	133	23694	132	25348	105	28655	77	14498
-SUBTOTAL	244	22429	242	24069	263	28045	303	38671	309	42339	306	47918	284	34139
TROPICAL RESEARCH INSTITUTE														
FEDERAL SALARY & EXPENSES	87	3367	88	3574	88	3974	95	4895	107	4853	112	4912	118	6672
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	89	2	106	2	111	2	116	2	121	2	126	2	131
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	204	0	144	0	148	0	172	0	200	0	215	0	246
-ALL OTHER	0	62	0	52	0	55	0	40	0	40	0	45	0	45
RESTRICTED	0	324	0	397	0	225	6	217	6	180	4	100	4	120
FEDERAL GRANTS & CONTRACTS	0	5	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	89	4051	90	4273	90	4513	103	5440	115	5394	118	5398	124	7214
SMITHSONIAN ENVIRONMENTAL RESEARCH CTR														
FEDERAL SALARY & EXPENSES	68	3170	68	3439	68	3739	68	3709	81	4284	84	4634	87	4259
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	69	1	76	1	79	1	81	1	84	2	101	2	104
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	8	0	20	0	10	0	19	0	20	0	22	0	24
-ALL OTHER	0	82	0	91	0	96	0	107	0	109	0	112	0	115
RESTRICTED	0	23	0	19	0	5	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	7	413	7	390	6	303	0	0	0	0	0	0	0	0
-SUBTOTAL	76	3765	76	4035	75	4236	69	3916	82	4497	86	4869	89	4502

Air and Space Museum (NASM). During the planning period, the Museum anticipates a continuing process of strengthening research programs in the history and technology of aviation and space flight, as well as remote sensing and atmospheric and planetary geologic applications. An important adjunct to the research activities which will also benefit collection management, exhibition and public programs, is the acceleration of the videodisc and digital recording efforts. This will enhance the utility of the collections, as well as allow for rapid accessioning of newly-collected materials. Publications and education programs will continue to be stressed. It is anticipated that during this period the first of several new buildings will open at Dulles Airport to provide opportunities for exhibition of larger objects, such as the Concorde or space shuttle that cannot be practicably exhibited on the Mall. Plans also call for the eventual relocation of the preservation and restoration activities from the Paul E. Garber facility. Two new IMAX Films have been commissioned for the planing period. The first, "The Dream is Alive," will be the first motion picture filmed in space, and the second, "On The Wing," is a lyrical depiction of the analogies of natural and mechanical flight. A new 1,000 seat restaurant is being built on the museum's east terrace and will open during the planning period. Plans also call for the present restaurant on the third floor to be converted to a quality dining facility.

Zoological Park (NZP). Emphasis will be placed on developing an invertebrate exhibit featuring such animals as corals, worms, crustaceans, insects and spiders and on planning a comprehensive exhibit of aquatic animals including fishes. Development of long-term zoological and biomedical research activities at Rock Creek and Front Royal sites will continue. Emphasis will be placed on research problems relating to the captive management of wildlife and conservation biology, including nutrition, physiology, ecology, and behavior. The Zoo will continue to study reintroducing animals to their natural habitats. Training programs for developing wildlife conservation techniques in the tropics will focus on wildlife biologists from developing nations. The visiting public will be made more aware of the plight of endangered species through the use of signs, labels, and improved graphics. A new veterinary hospital is projected to be occupied in FY 1985. The Rock Creek Master Plan will be completed over the period with the exception of the visitor parking garage. At the Front Royal Conservation and Research Center, appropriate facilities for primates, large-hoofed stock, animal health programs and maintenance of the Center are being planned. Sound preventive maintenance programs will be pursued to include new buildings constructed at Rock Creek Park and Front Royal.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 6 (3)

SCIENCE	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL AIR & SPACE MUSEUM														
FEDERAL SALARY & EXPENSES	209	7713	209	8049	209	8349	228	9194	237	9154	238	8959	238	8959
UNRESTRICTED GENERAL	0	45	0	8	0	8	0	8	0	8	0	8	0	8
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	16	1180	16	1229	16	1251	16	1289	16	1327	16	1366	16	1407
-BUREAU ACTIVITY	13	1889	13	1339	13	772	13	792	13	815	13	839	13	863
-ALL OTHER	0	115	0	75	0	83	0	87	0	90	0	93	0	96
RESTRICTED	1	134	1	198	1	183	1	187	1	192	1	197	1	202
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	239	11076	239	10898	239	10646	258	11557	267	11586	268	11462	268	11535
NATIONAL ZOOLOGICAL PARK														
FEDERAL SALARY & EXPENSES	319	10641	319	11074	319	11424	328	12394	341	13144	347	13619	353	13794
UNRESTRICTED GENERAL	1	59	1	99	1	99	1	101	1	101	1	103	1	103
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	212	0	119	0	108	0	110	0	115	0	120	0	125
-ALL OTHER	0	154	0	128	0	114	0	117	0	118	0	123	0	124
RESTRICTED	1	111	1	49	1	51	1	50	1	50	1	50	1	50
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	321	11177	321	11469	326	11796	330	12772	343	13528	349	14015	355	14196
SCIENCE-SUMMARY														
FEDERAL SALARY & EXPENSES	1209	51973	1300	55681	1313	58590	1392	66292	1455	69830	1499	72087	1529	73565
UNRESTRICTED GENERAL	49	2828	49	2757	48	2925	48	2995	48	3064	49	3169	49	3263
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	18	1523	18	1528	18	1549	18	1636	18	1699	18	1768	18	1839
-BUREAU ACTIVITY	13	2803	13	2195	13	1633	13	1653	13	1731	13	1823	13	1914
-ALL OTHER	8	2702	7	2831	7	2574	13	2652	13	2942	11	2821	11	2951
RESTRICTED	155	14966	154	15990	168	18175	175	26122	174	27821	147	31174	119	17065
FEDERAL GRANTS & CONTRACTS														
-TOTAL	1542	76795	1541	80982	1572	85446	1659	101350	1721	107087	1737	112342	1739	100597
* Less SAO overhead recovery		-2030		-2260		-2480		-2540		-2620		-2700		-2785
- Program and Administrative														

HISTORY AND ART

Assistant Secretary for History and Art. This office provides advice and guidance to history and art bureaus in the development of their programs. Opening of the Center for Asian Art and moving the National Museum of African Art to its new quarters on the Mall are of highest priority.

Joseph Henry Papers (JHP). Over the next five years emphasis will be placed on the phased development of the Joseph Henry Institute for the History of the Sciences in American Life. The scope of the Institute would be the Sciences broadly conceived. Both the pure and applied sciences would be studied, including technology and medicine, for all periods of American history. Though the natural sciences would be emphasized the Institute would include the history of the social sciences as well, and would concern itself not only with the internal history of the sciences but especially with the role that the sciences have played in American society--government, industry, education and popular culture.

Museum of American History (NMAH). During this period the Museum will continue with its ten year major reinstallation program, opening at least one new show each year, and pursue a vigorous schedule of temporary exhibits including an exhibition commemorating the bicentennial of the signing of the United States Constitution. Security and care of the collections continues to be the Museum's highest priority and collection management efforts will be accelerated, particularly the final stages of inventory refinement and reconciliation, with the installation of a data processing capability. Efforts will be made to add to the current holdings when significant opportunities arise to fill gaps in the collection or when the addition of major collections seems in the best interest of the citizens and the Institution. Further, the registrarial functions will receive increased attention, including development of the new archives center. Understaffed for some time, some growth in the facilities management staff is anticipated to clean and maintain the public and work areas of the Museum due to expanded programs. The Museum will also work toward eliminating all safety hazards, specifically for the removal and cleaning of asbestos. In addition the Museum will oversee the movement of appropriate collections to the Museum Support Center; other improvements to collection storage facilities at Suitland are envisioned. Finally, the Museum will endeavor to maintain affirmative action in all its activities, securing an adequate presence for Native Americans and continuing programs for minority interests generally.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 7 (1)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
ASSISTANT SECRETARY FOR HISTORY & ART														
FEDERAL SALARY & EXPENSES	4	400	4	208	4	208	4	222	4	222	4	222	4	222
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	105	1	100	1	152	1	112	1	113	1	113	1	115
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	7	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	512	5	308	5	360	5	334	5	335	5	335	5	337
JOSEPH HENRY PAPERS-														
FEDERAL SALARY & EXPENSES	5	212	5	221	5	221	9	361	10	403	10	403	10	403
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	1	0	1	0	28	0	28	0	28	0	28	0	28
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	214	5	223	5	250	9	390	10	432	10	432	10	432
MUSEUM OF AMERICAN HISTORY														
FEDERAL SALARY & EXPENSES	295	9856	302	11055	312	11835	327	12711	327	13161	328	12806	328	12806
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	345	2	175	2	138	2	142	2	144	2	146	2	148
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	6	0	8	0	10	0	8	0	8	0	9	0	9
-ALL OTHER	1	469	0	206	1	222	0	235	0	242	0	249	0	257
RESTRICTED	4	526	2	1069	0	577	0	573	0	590	0	608	0	627
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	302	11202	306	12513	315	12782	329	13669	329	14145	330	13818	330	13847

National Museum of American Art (NMAA). Throughout the period, the Museum plans to strengthen areas of collections management, research, exhibitions, publications, security and general administration through acquisition of computer hardware and integration of the Museum's programs with the Institution's various information systems. Enhancement of NMAA's foremost automated research resources, the Inventory of American Painting, and the establishment of a parallel Inventory of American Sculpture, will strengthen the Museum's position as a national resource for the study of American art. The vital task of preserving and restoring irreplaceable American art works will remain an important program. The Museum plans to continue to strengthen the permanent collection, especially through the acquisition of art photographs. As FY 1990 approaches and functional areas have been strengthened, NMAA will concentrate its efforts in scholarly research and its benefits by augmenting the curatorial staff and staff support. In addition, the Museums will continue planning for occupying the General Post Office building, which will be shared with the Portrait Gallery and the Archives of American Art; estimates for NMAA additional staff and resources are not included here.

Portrait Gallery (NPG). Moderate staff growth and increased resources are needed to strengthen registrarial activities over the period and to provide online computer facilities. Conservation of the collections continues to be of primary importance and modest increases are planned for replacing equipment in the conservation and photographic laboratories. Increased resources are anticipated also for the education and public orientation program and to assure continuous development of the permanent collection. During the period, NPG will refine its plans for the use of space in the old General Post Office Building. Occupancy of the building would necessitate some resources (not included here) to strengthen the Gallery's research programs encompassing subjects central to the Gallery's areas of responsibility; to improve research facilities in the library; and to broaden publication programs to include a series of guides to portions of the permanent collection. Further, to mark the 20th year of its opening, in 1988 the Portrait Gallery plans a series of events, among them a major symposium on aspects of American biography.

Hirshhorn Museum (HMSG). Conservation of works in the collection continues to be of utmost importance, as does work on the Hirshhorn Bequest items and the outdoor sculpture. During FY 1985, the Museum expects to accession the 6,000 works in the Hirshhorn Bequest into its permanent collection. Increased resources to permit an annual exhibition from overseas of noted contemporary and modern art works and to strengthen the Museum's acquisition program continues to be among the Museum's highest priorities. In addition, a computer system is planned within the museum that will allow the electronic transmission of data from one part of the museum to another and to other Smithsonian managers as well. A major project researching all Eighteenth and Nineteenth Century French Sculpture in the Museum's collection will be started, and one result will be an important publication planned for FY 1990.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 7 (2)

HISTORY & ART	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	117	4441	118	4648	120	4948	124	5603	125	5623	126	5663	127	5648
UNRESTRICTED GENERAL	0	46	0	57	0	45	0	46	0	47	0	47	0	48
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	6	0	6	0	6	0	8	0	8	0	8	0	8
-BUREAU ACTIVITY	3	83	3	140	3	168	4	155	4	160	4	165	4	170
-ALL OTHER	0	268	0	213	0	337	0	77	0	77	0	77	0	77
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	120	4844	121	5064	123	5504	128	5889	129	5915	130	5960	131	5951
NATIONAL PORTRAIT GALLERY														
FEDERAL SALARY & EXPENSES	82	3221	82	3367	83	3472	86	4083	86	4071	86	4046	92	4172
UNRESTRICTED GENERAL	0	64	0	18	0	19	0	19	0	20	0	21	0	22
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	9	0	10	0	10	0	20	0	20	0	20	0	20
-BUREAU ACTIVITY	3	106	1	86	0	47	0	40	0	40	0	40	0	40
-ALL OTHER	0	800	0	239	0	117	0	150	0	150	0	200	0	200
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	85	4200	83	3720	83	3655	86	4312	86	4301	86	4327	92	4454
HIRSHHORN MUSEUM & SCULPTURE GARDEN														
FEDERAL SALARY & EXPENSES	77	2986	77	3109	77	3139	78	3889	78	4089	78	3989	78	4189
UNRESTRICTED GENERAL	0	12	0	12	0	12	0	12	0	13	0	14	0	15
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	198	0	175	0	45	0	50	0	50	0	50	0	50
RESTRICTED	0	1	0	719	0	60	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	77	3197	77	4015	77	3256	78	4151	78	4352	78	4253	78	4454

Center for Asian Art (CAA). The Center, which incorporates the programs of the Freer Gallery of Art and the Sackler Gallery, anticipates significant staff and resource growth in selected areas over the next five years. The Freer plans a strengthened research program in the areas of Indian and South Asian art, and forecasts additional curatorial support in specific areas of specialization to automate collections records. Staff and resources in the area of collections management are projected for the Sackler Gallery to provide remedial conservation work to the objects given to the gallery and to prepare for the transfer to the objects into the museum on the Mall. Future year plans include expansion of the education, public orientation and exhibition programs of both the Freer Gallery and the Sackler Gallery. The Freer will enhance its publications program in order to accommodate an expanded exhibition program resulting from increased space acquired after renovation and treatment of objects for the Sackler Collection and an facilities will be renovated to accommodate examination and treatment of objects for the Sackler Collection and an expanded Oriental painting restoration program. The Sackler Gallery anticipates publication of one major catalogue each year as well as gallery guides, leaflets and other materials for the public. Preparation of the inaugural exhibition and installation of the galleries are also high priority and resources are incorporated for this purpose. Emphasis will be placed on the development of an aggressive collections acquisition program for both the Freer Gallery of Art and the Sackler Gallery to assure acquisition of the finest quality objects and to search for particular examples that strengthen existing holdings.

Archives of American Art (AAA). The Archives staff will direct attention to the management and care of the collections; of immediate concern is the care of the photograph collection, for which curatorial support and conservation services are required. Conservation of 2,500 valuable oral histories also is a high priority and a system for proper handling and storage of the original tapes will be developed. The Archives continues to inventory and reconcile the physical collection to accession records; indexing and cataloguing will be related to the automated collections management system. Plans will be refined for the move to the General Post Office Building (associated program resources are not included here). The AAA plans to exhibit in some of the vacated spaces of the Patent Office building or through shows that can be circulated by SITES.

Cooper-Hewitt Museum (CHM). The Museum plans a major fundraising effort in order to undertake and complete improvements to its physical facilities over the period. Exhibitions programming and educational activities will continue during the fundraising cycle, and in off-site locations during any construction activity. Collection management efforts will focus on refinement of collection records, and, when appropriate relocating the collections for renovation efforts to proceed. Although staff growth is anticipated, emphasis will be placed on converting from trust to federal those employees whose activities advance programs which are normal federal responsibilities of the bureaus in Washington. Increased federal resources also are anticipated for the Museum's exhibit program to provide a more stable base. Growth in federal resources are for the Museum's collection and exhibit specialty fields; to operate and maintain the physical plan and property; to provide outside conservation service contracts; and to allow for an expanded visitor orientation program.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 7 (3)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
CENTER FOR ASIAN ART														
FEDERAL SALARY & EXPENSES	30	1090	37	1587	50	3097	69	4368	73	4680	73	4892	73	5185
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	56	1	62	1	67	1	72	1	81	1	82	1	87
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	5	0	3	0	3	0	3	0	3	0	3	0	3
RESTRICTED	21	1488	21	1485	21	1555	21	1570	21	1580	21	1590	21	1625
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	52	2639	59	3137	72	4722	91	6013	95	6344	95	6567	95	6900
ARCHIVES OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	16	714	16	741	20	1094	25	1382	28	1502	31	1663	31	1713
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	3	0	6	0	6	0	5	0	5	0	6	0	6
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	16	1031	16	1369	19	1318	20	1316	21	1382	22	1447	22	1490
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	32	1748	32	2116	39	2418	45	2703	49	2889	53	3116	53	3209
COOPER HEWITT MUSEUM														
FEDERAL SALARY & EXPENSES	25	851	32	1092	38	1242	46	2217	56	2397	56	2397	56	2397
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	18	739	18	717	18	747	18	760	18	773	18	788	18	802
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	650	5	695	5	717	5	740	5	762	5	785	5	809
-ALL OTHER	0	391	0	328	0	383	0	574	0	591	0	609	0	627
RESTRICTED	1	264	1	732	1	812	1	1150	1	1184	1	1219	1	1255
FEDERAL GRANTS & CONTRACTS	0	177	0	50	0	50	0	75	0	75	0	75	0	75
-SUBTOTAL	49	3072	56	3614	62	3951	70	5516	80	5782	80	5873	80	5965

Museum of African Art (NMAfA). The completion and move to the Quadrangle is the most important event scheduled for this museum over the planning period. Throughout this period, the Museum will emphasize major exhibitions, both permanent and rotating, drawing from a variety of African cultures and visual traditions, and will concentrate on the acquisition of objects of the finest quality and those deemed critically important to rounding out the collection. The long range exhibition program includes originating and circulating loan exhibitions accompanied by scholarly catalogues. In support of these exhibitions, moderate staff growth accompanied by increased revenues are required to expand and develop program activities including collections management, education, research and publications. Some growth is necessary to conduct collections research and documentation and to evaluate current holdings. As public interest in African Art continues to increase, the Museum forecasts a general requirement for an adequately funded and varied publications program. Existing educational and outreach programs will be reexamined to enhance the Museum's ability to render services to the expanding local and national audiences.

Anacostia Neighborhood Museum (ANM). Completion of the annex next to the present Exhibits Laboratory at Fort Stanton is the Museum's highest priority. The construction of this annex will permit the Museum to vacate its leased building. The annex will allow consolidation of activities and development of a more varied and vigorous program for the public. Planning for a new and modern museum building will also commence over the period. Long-range plans include closer collaboration with other Smithsonian history and art museums involving joint research, systematic information collection and retrieval, education, collection and curation programs. Further, the Museum will continue to plan and develop research and exhibition projects that support inhouse and traveling exhibitions and to locate and interpret historical documents, artifacts and memorabilia that are germane to Afro-American studies and ethnohistory for use in museum exhibitions.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 7 (4)

HISTORY & ART	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM OF AFRICAN ART														
FEDERAL SALARY & EXPENSES	25	986	32	1241	43	2825	52	2883	52	2758	52	2808	52	2808
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	87	3	88	1	39	1	64	1	66	1	68	1	71
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	2	0	4	0	1	0	7	0	7	0	7	0	7
-ALL OTHER	0	13	0	12	0	13	0	0	0	0	0	0	0	0
RESTRICTED	0	46	0	65	0	52	0	50	0	50	0	50	0	50
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	25	1134	35	1410	44	2930	53	3004	53	2881	53	2933	53	2936
ANACOSTIA NEIGHBORHOOD MUSEUM														
FEDERAL SALARY & EXPENSES	19	828	19	863	19	863	23	971	23	991	23	1016	23	1051
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	32	1	38	1	39	1	40	1	40	1	40	1	41
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	2	0	1	0	1	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	20	862	20	902	20	903	24	1011	24	1031	24	1056	24	1092
HISTORY & ART-SUMMARY														
FEDERAL SALARY & EXPENSES	695	25585	724	28132	771	32944	843	38690	862	39897	867	39905	874	40594
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	23	1489	26	1273	24	1264	24	1272	24	1302	24	1325	24	1355
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	673	5	723	5	744	5	783	5	805	5	829	5	853
-ALL OTHER	7	1273	4	951	4	882	4	1058	4	1087	4	1117	4	1148
RESTRICTED	42	4427	40	5893	41	4857	42	5114	43	5241	44	5419	44	5552
FEDERAL GRANTS & CONTRACTS	0	177	0	50	0	50	0	75	0	75	0	75	0	75
-TOTAL	772	33624	799	37022	845	40741	918	46992	938	48407	944	48670	951	49577

PUBLIC SERVICE

Assistant Secretary for Public Service. Administration of Public Service programs are carried out by this office.

Office of Telecommunications (OTC). A one-hour documentary film is planned for 1985, to be produced in conjunction with the Museum of Natural History's 75th anniversary exhibition on the "U.S. Exploring Expedition of 1838-1842." This is now in the research/film treatment phase and will be shown both here and abroad. The exhibit and film will encompass maritime history, the natural sciences, cartography, and the origins of Smithsonian collections. Currently being researched is a proposed educational television series targeted for 9-12 year olds (4th-6th graders). This series would feature curators, scientists, and museum staff throughout the Institution. Plans call for a pilot program to be used to raise support funding. It would be aimed at a PBS and cable audience. The Office also is working to increase its audiovisual capabilities to serve Smithsonian bureaus in research, exhibitions, and educational activities.

Visitor Information and Associates' Reception Center (VIARC). An expansion of the available information desks in FY 1985 will include services at the Museum of American Art and the Portrait Gallery. The opening of the Quadrangle will require additional information services in FY 1986. In addition to increasing volunteer placement and intern registration services during the planning period, more attention will also be directed towards adding to the language translation services presently offered. An approach will be developed to incorporate a number of standard elements in visitor brochures, and maps, and the design and implementation of a graphics information system on the Mall and in the Metro station serving Smithsonian Museums. With start-up funding provided in FY 1983 and FY 1984, development will continue of pre-visit educational materials and a program to serve visitors and to promote and support Associate membership.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 8 (1)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
ASSISTANT SECRETARY FOR PUBLIC SERVICE														
FEDERAL SALARY & EXPENSES	5	242	5	252	5	252	5	252	5	252	5	252	5	252
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	177	1	34	1	50	1	42	1	44	1	46	1	48
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	100	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	5	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	524	6	286	6	302	6	294	6	296	6	298	6	300
OFFICE OF TELECOMMUNICATIONS														
FEDERAL SALARY & EXPENSES	5	202	5	211	5	211	6	236	6	236	6	236	6	236
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	8	461	8	525	8	571	9	611	9	672	9	740	10	851
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	26	0	39	0	41	0	47	0	51	0	57	0	62
-ALL OTHER	0	160	0	110	0	109	0	0	0	0	0	0	0	0
RESTRICTED	0	64	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	13	913	13	885	13	932	15	894	15	959	15	1033	16	1149
VISITOR'S INFORMATION & RECEPTION CENTER														
FEDERAL SALARY & EXPENSES	2	151	2	159	3	209	3	209	3	209	3	209	3	209
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	16	505	18	646	21	780	21	803	21	827	21	852	21	878
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	18	656	20	805	24	989	24	1012	24	1036	24	1061	24	1087

Office of International Activities (OIA). The demand for services of the OIA are increasing attributable to the proposed new International Center of the Quadrangle. The administration of exchange agreements with countries to be featured in the Quadrangle will increase and involve OIA staff. The demand for visa and passport services for Smithsonian staff is expected to grow as the International Center, Museum of African Art, Sackler Gallery, and other bureaus begin to increase their international contacts.

International Center (IC). The mission of the International Center is twofold: to focus activities which will underscore the interdependence of natural and cultural environments and fostered interdisciplinary dialogue in order to promote mutual understanding among cultures. The International Center will bring together scholars and scientists from the Smithsonian, elsewhere in the United States, and abroad in conducting research on the interdependent relationships between culture and environment. Such research will form the basis for all of the Center's programs and activities, including publications, symposia and conferences, exhibitions, performance programs and publication of educational materials. The Center will develop and operate an information center on international, historical, cultural, and scientific subjects to both scholars and the general public. It will develop formal relationships with institutions and associations throughout the world, and help to coordinate the activities of area research centers in bringing together outstanding authorities in the United States and from abroad to pursue their research in conjunction with Smithsonian scholars and International Center programs.

Smithsonian Institution Press (SIP). Long-range plans call for gradual growth of the university press division. Emphasis will be placed on scholarly publications with major expansion in anthropology, music, art and art history, American studies, and museum management. Careful attention will continue to be given to electronic publishing (data base retrieval) and video cassettes/discs. The direct mail book division will examine whether it should expand from one to two popular books a year to three or four. This determination will be based on careful market analysis. The records division, which is now operating efficiently, will continue to produce one or two popular record packages a year. In addition, the program will explore the feasibility of releasing two or three scholarly, archival records a year.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 8 (2)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
INTERNATIONAL ACTIVITIES														
FEDERAL SALARY & EXPENSES	5	194	5	200	5	200	5	200	5	200	5	200	5	200
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	4	0	3	0	3	0	3	0	3	0	3	0	3
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	198	5	203	5	203	5	203	5	203	5	203	5	203
INTERNATIONAL CENTER														
FEDERAL SALARY & EXPENSES	0	0	2	100	22	850	35	950	37	1020	37	1022	45	1110
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	146	8	437	9	480	9	530	9	585	9	645	9	705
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	1770	0	1486	0	1800	0	1370	0	1100	0	950
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	1	146	10	2307	31	2816	44	3280	46	2975	46	2767	54	2765
SMITHSONIAN INSTITUTION PRESS														
FEDERAL SALARY & EXPENSES	29	1044	29	1085	29	1085	30	1085	30	1085	30	1085	30	1085
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	75	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	33	11695	33	12460	33	13045	35	13670	35	14330	35	15020	35	15660
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	42	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	62	12856	62	13545	62	14130	65	14755	65	15415	65	16105	65	16745

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 8 (3)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
PUBLIC SERVICE-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	46	1833	48	2007	69	2807	84	2932	86	3002	86	3004	94	3092
-PROGRAM & ADMINISTRATIVE	25	1368	35	1645	39	1884	40	1989	40	2131	40	2286	41	2485
-AUXILIARY ACTIVITY	33	11695	33	12460	33	13045	35	13670	35	14330	35	15020	35	15660
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	26	0	39	0	41	0	47	0	51	0	57	0	62
-ALL OTHER	0	260	0	110	0	109	0	0	0	0	0	0	0	0
RESTRICTED	0	111	0	1770	0	1486	0	1800	0	1370	0	1100	0	950
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	104	15293	116	18031	141	19372	159	20438	161	20884	161	21467	170	22249

MUSEUM PROGRAMS

Assistant Secretary for Museum Programs. The Office maintains close working relationships with national and international museological organizations. The Office will continue to review utilization of resources available to museum programs to assure the most effective application to requirements. No substantive changes in program direction are planned at the present time.

Office of Museum Programs (OMP). During the planning period, the Office of Museum Programs plans to strengthen museology training and counseling activities and its audiovisual and publication program. The number of museum training programs for Smithsonian staff will be expanded, as will the frequency of regionally based and cosponsored workshops. The Office will place increased emphasis on activities serving minority needs within the museum profession.

Office of the Registrar (OR). This Office is responsible for Institutional development, oversight and coordination of policies and practices related to the management of collections, including accountability procedures and information management techniques for all objects and specimens held by the Smithsonian. Inventory, one aspect of collections management touching on all these matters, has been and will continue to be an important concern throughout the planning period because all bureaus are required to conduct cyclical inventories now that their initial 1978-83 baseline inventories have been completed. A related concern will be the enhancement and updating of collection records to improve knowledge about and access to the collections. In addition, training programs will be developed to support Smithsonian personnel working in collection registration and related functions. The Office also will continue to manage the affairs of the Smithsonian's Registrarial Council and will develop collections management information for dissemination through this group.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 9 (1)

MUSEUM PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	7	340	7	354	7	354	7	354	7	354	7	354	7	354
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	45	0	8	0	9	0	9	0	9	0	9	0	9
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	158	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	3	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	7	546	7	362	7	363	7	363	7	363	7	363	7	363
OFFICE OF MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	12	330	12	350	13	462	17	661	18	730	18	775	18	845
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	3	0	6	0	6	0	6	0	6	0	6	0	6
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	1	51	0	53	1	57	0	65	0	66	0	67	0	68
-ALL OTHER	0	10	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	3	472	3	483	3	348	1	250	0	25	0	25	0	25
FEDERAL GRANTS & CONTRACTS	0	1	0	2	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	16	867	15	894	17	873	18	982	18	827	18	873	18	944
OFFICE OF THE REGISTRAR														
FEDERAL SALARY & EXPENSES	2	95	2	99	2	99	4	149	4	149	4	149	4	149
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	2	95	2	99	2	99	4	149	4	149	4	149	4	149

Conservation Analytical Laboratory (CAL). Activities are undergoing substantial growth which will extend over the next several years as its expanded conservation, scientific, and training staffs activate and utilize new facilities at the Museum Support Center. Equipment and work areas allow for more complete treatment of several classes of materials, and modern instrumentation permit a wider range of analysis and research to provide answers to pressing conservation questions. Research will also provide a technology base for new work in conservation techniques and for controlling the museum micro-environment. The range of objects subject to archaeometric research will be extended and the data bases produced by this research, on which questions of provenance, origin and time depend, will be enlarged dramatically. Existing archaeometric data currently scattered in laboratories throughout the country are being brought together in a new program, the Smithsonian Archaeometric Research Collections and Records (SARCAR). All of these staff, laboratory and information resources will be available to the Conservation Training program, scheduled to begin in 1986, which will offer comprehensive academic and internship experiences to conservation students. The CAL moved to new and larger facilities in the Museum Support Center in the fall of 1983. Acquisition of basic new equipment for the laboratories and training areas is planned to be completed in FY 1985. Personnel and operating requirements are contained in CAL projections and are aggregated for display purposes in Table 5.

Smithsonian Institution Libraries (SIL). The principal objective of the Libraries over the planning period is to strengthen research service capacity through development of collections, both print and electronic, to expand staff, and to enlarge conservation capabilities. The Libraries are actively conducting detailed studies to support planning for a facility in which to consolidate the main reference collections, special and rare materials, central acquisitions, indexing, and cataloguing functions and other activities. The SIL will continue to support directly the wide field of SI scholarly, public, and administrative programs through its central reference service; its system of branch libraries located in Washington, Cambridge, New York, and the Republic of Panama; its interlibrary loans; and its online data services. Requirements for establishing library services in the Quadrangle are contained in Libraries projections and are aggregated for display purposes in Table 5.

Office of Exhibits Central (OEC). The Office will continue to produce, install, and maintain exhibitions and to provide other specialized services to the bureaus of the Institution. Highly specialized OEC capabilities include design and editorial services, freeze-dry taxidermy and all types of model making. In support of the Office of Museum Programs, the OEC provides workshop training in exhibition media and techniques for museum professionals throughout the world. Over the course of this planning period obsolete equipment, such as freeze-dry chambers and storage freezers, will be replaced with more reliable and technologically current machinery. Some support for Quadrangle related exhibition programs is planned for FY 1986 and future years and is contained in the OEC trends below and also appear in Table 5.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 9 (2)

MUSEUM PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CONSERVATION ANALYTICAL LABORATORY														
FEDERAL SALARY & EXPENSES	36	1666	46	2274	49	2404	55	2834	56	3026	58	3126	60	3175
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	36	1666	46	2274	49	2404	55	2834	56	3026	58	3126	60	3175
SMITHSONIAN INSTITUTION LIBRARIES														
FEDERAL SALARY & EXPENSES	93	3692	97	4406	101	5076	119	7144	122	7618	126	7326	129	8023
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	327	9	304	10	319	10	357	10	397	10	417	11	427
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3	0	0	0	0	0	3	0	3	0	4	0	4
RESTRICTED	0	51	0	6	0	6	0	4	0	4	0	4	0	4
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	102	4073	106	4716	111	5401	129	7508	132	8022	136	7751	140	8458
OFFICE OF EXHIBITS CENTRAL														
FEDERAL SALARY & EXPENSES	42	1467	42	1521	43	1605	50	1727	52	1783	55	1870	55	1843
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	-4	0	18	0	2	0	1	0	2	0	3	0	2
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	42	1463	42	1539	43	1607	50	1728	52	1785	55	1873	55	1845

Traveling Exhibition Service (SITES). The main goal of the Traveling Exhibition Service during the planning period will be to have available approximately 130 exhibitions for traveling and circulation throughout the United States and abroad. New exhibitions will be produced at a rate of thirty per year along with catalogue and resource materials. At least one paper-panel exhibition, which will be available for purchase by interested institutions, will also be produced each year. SITES currently occupies space in the Arts and Industries building but will be moving to Quadrangle exhibition and workshop areas when that facility is complete in FY 1986. Resource for Quadrangle and other support for FY 1986-1990 are in the projections below and also appear in Table 5. In FY 1986, there will be an increase of educational activities associated with SITES exhibitions involving schools, multi-media workshops and workshops involving disciplines and new areas of educational technology. Over the planning period the international program will continue to seek outside support to underwrite a large portion of its activities. Also, SITES will develop a plan for traveling exhibitions to be offered in conjunction with the celebration of the 500th anniversary of the discovery of America (1992).

Smithsonian Archives (SIA). The Office during the planning period will extend archival and records management programs to all records-producing offices of the Institution, resulting in substantial transfer and increases in its holdings. Projects to identify and describe photographic collections in the Institution will continue. A guide will be published based on the results of the survey, and be updated as an ongoing record of photographic resources. Further work on developing description and cataloging down to the individual image level within collections is expected to follow the survey project. The oral history program will be adapted and phased to help improve conservation work. A survey of scientific illustrations will be undertaken and a guide produced which will be maintained and updated to provide and ongoing record. Ways will be considered to accommodate the growing holdings by examining space alternatives in future years.

National Museum Act (NMA). The Act is a technical assistance program that makes grants for projects that will enhance the quality of museum operations. Through these grants the Act supports professional training in museum activities, research for the improvement of museum methods, and the dissemination of technical information to the profession through publications and workshops or seminars. Many NMA projects involve advanced training in the field of conservation and scientific research that will result in new techniques for conservators and better methods for the care and preservation of objects. Research projects funded by the National Museum Act, especially in conservation, have generally not received support from other funding sources. The Program plans to continue its activities at the full level of authorized funding but no additional responsibilities are projected.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 9 (3)

MUSEUM PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TRAVELING EXHIBITION SERVICE														
FEDERAL SALARY & EXPENSES	7	295	10	355	17	550	19	640	19	620	19	640	19	620
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	3	622	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	22	1475	23	1445	25	1650	26	1720	27	1790	28	1865	28	1925
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	5	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	3	1967	2	833	0	655	2	1000	2	1000	2	1000	2	1000
FEDERAL GRANTS & CONTRACTS	0	44	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	35	4408	35	2633	42	2855	47	3360	48	3410	49	3505	49	3545
SMITHSONIAN ARCHIVES														
FEDERAL SALARY & EXPENSES	15	501	15	523	15	523	18	629	19	674	19	674	19	749
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	5	129	5	144	5	129	2	67	2	69	2	71	2	74
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	20	630	20	667	20	652	20	696	21	743	21	745	21	823
NATIONAL MUSEUM ACT														
FEDERAL SALARY & EXPENSES	3	787	3	789	3	789	3	1000	3	1000	3	1000	3	1000
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	3	787	3	789	3	789	3	1000	3	1000	3	1000	3	1000

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 9 (4)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM PROGRAMS														
MUSEUM PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	217	9173	234	10671	250	11862	292	15138	300	15954	309	15914	314	16758
-AUXILIARY ACTIVITY	17	1126	14	462	15	463	12	439	12	481	12	503	13	516
UNRESTRICTED SPECIAL PURPOSE	22	1475	23	1445	25	1650	26	1720	27	1790	28	1865	28	1925
-BUREAU ACTIVITY	1	51	0	53	1	57	0	65	0	66	0	67	0	68
-ALL OTHER	0	172	0	18	0	2	0	4	0	5	0	7	0	6
RESTRICTED	6	2493	5	1322	3	1009	3	1254	2	1029	2	1029	2	1029
FEDERAL GRANTS & CONTRACTS	0	45	0	2	0	0	0	0	0	0	0	0	0	0
-TOTAL	263	14535	276	13973	294	15043	333	18620	341	19325	351	19385	357	20302

SPECIAL PROGRAMS

American Studies and Folklife Program (OAmers and OFFP). During FY 1986-90 the Office of Folklife Program will continue to expand the Smithsonian Folklife Studies Series with publication of monographs/films based on scholarly research of folkways still practiced or in living memory in a variety of traditional cultures; publish papers and reviews; organize living presentations within exhibitions mounted by other bureaus; and plan and produce the annual Festival of American Folklife. Additional activities under consideration for future year festivals include programs on occupational folklife, on Black American Culture and on Native American cultures. The festival will continue to present the diverse cultures and traditions found in the United States, as well as the multitude of ethnic groups worldwide. The Office of American Studies will continue to sponsor a graduate program in American material culture in cooperation with various universities in and outside of the Washington, D.C. area, and the activities and resources associated with this program are not expected to change in a major fashion.

Office of Elementary and Secondary Education (OESE). Gradual growth in readership of the publication Art to Zoo is projected, and this together with minor additional expenses for supplies and materials results in modest increases in federal funding anticipated through FY 1989. On the trust fund side, an educational material kit devoted to teaching in Anthropology is being produced and more such units may be developed on various art, history, and science subjects based on Smithsonian collections. These kits will be produced with the support of outside funding in cooperation with the Smithsonian Institution Press. Also under consideration is a news service project for young people which would be based on Smithsonian research and collections and directed to young adolescents in schools across the nation. This is envisioned as a joint project with the Institution's Office of Public Affairs. Regional teacher oriented workshops, production of learning materials for hospitalized children, activities for handicapped visitors, and a program to introduce minority young people to career opportunities at the Smithsonian are all expected to be in place and functioning well over the planning period.

Office of Smithsonian Symposia and Seminars (OSSS). The Office of Smithsonian Symposia and Seminars will continue to design public service educational programs, symposia and seminars. Three major projects will require most of the Office's resources in the next decade: (1) encouraging Smithsonian cooperation with research centers, colleges, and universities to improve Americans' understanding of other societies and cultures, especially in the context of the Smithsonian's new South Quadrangle International Center; (2) serving as part of a national and international network of educators to help commemorate the two hundredth anniversary of the U.S. Constitution and Bill of Rights; and (3) designing international functions commemorating the five hundredth anniversary of Columbia's expedition to the New World.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 10 (1)

SPECIAL PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
AMERICAN STUDIES & FOLKLIFE PROGRAM														
FEDERAL SALARY & EXPENSES	8	656	8	689	9	799	15	909	16	1019	16	1019	16	1019
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	11	500	13	563	13	605	13	623	13	642	13	661	13	681
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	2	0	1	0	2	0	3	0	3	0	3
-ALL OTHER	0	35	0	35	0	26	0	22	0	22	0	22	0	22
RESTRICTED	0	54	0	208	0	208	0	207	0	213	0	219	0	226
FEDERAL GRANTS & CONTRACTS	0	394	0	403	0	257	0	265	0	273	0	281	0	289
-SUBTOTAL	19	1640	21	1900	22	1896	28	2028	29	2172	29	2205	29	2240
OFC OF ELEMENTARY & SECONDARY EDUCATION														
FEDERAL SALARY & EXPENSES	7	305	7	319	7	319	8	360	8	360	8	360	8	360
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	92	2	112	2	122	2	125	2	129	2	133	2	137
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	6	0	5	0	5	0	2	0	2	0	2	0	2
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	66	0	231	0	312	0	20	0	21	0	21	0	22
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	469	9	667	9	754	10	507	10	512	10	516	10	521
OFFICE OF SYMPOSIA & SEMINARS														
FEDERAL SALARY & EXPENSES	3	94	3	98	3	98	3	118	3	98	3	98	3	98
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	101	2	119	2	122	2	133	2	138	2	143	2	148
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	145	0	46	0	48	0	50	0	55	0	60	0	65
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	4	340	5	263	5	264	5	301	5	291	5	301	5	311

Office of Fellowships and Grants (OFG). The Office will continue to administer the Institution's fellowship programs and visiting academic appointments and internships. Since 1979, most of these activities have been supported with nonappropriated trust funds. Approximately 85 fellowships and 30 other awards are offered each year. The funding projected will allow for an approximate thirty percent growth in the number of awards and appropriate increases in the stipends. Increases are also planned for the Regent's Fellowship program (shown separately below). In addition, through the Office the Institution provides opportunities for minority students via the cooperative education and internship program; this effort will grow as appropriate funding materializes. The Office will continue to manage the Institution's Foreign Currency Program. While these funds are not considered as part of the Institution's federal operating appropriation, projections call for funding levels of \$7,500,000 equivalent in FY 1986 (to continue the grant program at \$4,000,000 equivalent, \$2,759,000 equivalent to fund the forward reserve of the American Institute of Indian Studies, and \$1,000,000 equivalent for the U.S. contribution to the Moenjodaro restoration project); \$2,000,000 equivalent is projected for the grant program in FY 1987-90.

International Environmental Science Program (IESP). Long-term environmental data collection and research, supported through IESP, will continue at two permanent sites, the Smithsonian's Environmental Research Center and the Tropical Research Institute. In FY 1986, plans call for a data monitoring and collection site in the Montane tropical rain forest in Chiriqui, Republic of Panama. During FY 1987-1990 additional sites are contemplated for Latin America and South Asia. Additional funding will be used to provide extensive training for foreign collaborators at Smithsonian facilities and in the host countries.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 10 (2)

SPECIAL PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
OFFICE OF FELLOWSHIPS & GRANTS														
FEDERAL SALARY & EXPENSES	11	314	11	328	11	328	11	328	11	328	11	328	11	328
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	70	3	123	3	124	3	128	3	132	3	136	3	140
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1079	0	1450	0	1711	0	2015	0	2300	0	2525	0	2720
RESTRICTED	0	18	0	65	0	65	0	65	0	15	0	15	0	15
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	12	1481	14	1966	14	2228	14	2536	14	2835	14	3004	14	3203
REGENT'S FELLOWSHIPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	130	0	130	0	140	0	145	0	150	0	155	0	160
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	130	0	130	0	140	0	145	0	150	0	155	0	160
INTERNAT'L ENVIRONMENTAL SCIENCE PROGRAM														
FEDERAL SALARY & EXPENSES	13	681	13	712	13	712	14	797	14	850	14	952	14	1029
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	13	681	13	712	13	712	14	797	14	850	14	952	14	1029

Collection Management/Inventory Program. These funds have been used, beginning in FY 1979 with appropriation of \$500,000 to initiate and carry through with the first complete inventory in the Institution's history. No funding increases are projected, but the need to continue the program is great. The resources will be used for reconciliation of records, maintaining a stable amount of effort to keep abreast of documenting incoming objects, and automating various collection record systems throughout the Institution.

Collection Acquisition, Scholarly Studies, Education Program and Smithsonian Awards (CARE). These trust funds support a variety of institutional activities such as purchase of special collections, workshops for minorities and the handicapped, educational conference and products, and meritorious research projects. Some increase in funding is projected if the Institution's revenue generating activities continue to perform in a good fashion.

Museum Support Center (MSC). Trends portrayed for FY 1986 through FY 1990 reflect plans to meet the full operating and equipping requirements for the Center. The request for FY 1986 contains \$4,200,000 to complete the storage system for the initial move of collections (utilizing 61% of the MSC storage space) and to complete plans for the use of the remainder of the space. Installation of this second part of the storage system, which will accommodate future collections growth and meet other critical storage needs is projected for the period FY 1987-FY 1990. After 1985, annual operating funds for administration and maintenance of the MSC are projected to range from about \$1,400,000 to \$1,700,000. Annual costs of about \$750,000 to support the physical transfer of collections from museums to the MSC are projected through FY 1987, with somewhat less needed through FY 1989. Funds for operational costs of program units which are involved in MSC are included in the appropriate bases of the units. Utilities are included in the Facilities Services chapter, along with security, building engineers, and other requirements.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 10 (3)

SPECIAL PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
COLLECTIONS MANAGEMENT/INVENTORY PROGRAM														
FEDERAL SALARY & EXPENSES	38	834	38	857	38	1157	38	1157	38	1157	38	1157	38	1157
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	38	834	38	857	38	1157	38	1157	38	1157	38	1157	38	1157
CARE, FLUID RSCH., SMITHSON AWARDS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	2650	0	2650	0	2725	0	2480	0	3075	0	3075	0	3075
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	2650	0	2650	0	2725	0	2480	0	3075	0	3075	0	3075
MUSEUM SUPPORT CENTER EQUIP./OPERATIONS														
FEDERAL SALARY & EXPENSES	34	5251	38	9180	78	5880	75	9901	74	3950	59	6150	42	2373
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	355	0	315	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	34	5606	38	9495	78	5880	75	9901	74	3950	59	6150	42	2373

Special Exhibitions Program. FY 1985 and the federal resources are included in the base figures for the Museum of American History and the Museum of Natural History. Projections of trust support assume the establishment of a special Regents' program for funding meritorious exhibit proposals from bureaus which cannot be accommodated within available federal base resources. These efforts also may be partially funded with gifts and grants from outside donors. The projections also assume the continued good performance of business and auxiliary activities as a source of program support.

NOTE: The summary totals include \$1,000,000 appropriated for the John F. Kennedy Center (Trustee Grant) in FY 1984. They do not include foreign currency appropriations or projections.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 10 (4)

SPECIAL PROGRAMS	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SPECIAL EXHIBITION PROGRAM														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	885	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	3000	0	3000	0	3500	0	3500	0	3500	0	4000
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	885	0	3000	0	3000	0	3500	0	3500	0	3500	0	4000
JOHN F KENNEDY CENTER TRUSTEE GRANTS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	1000	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	1000	0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	114	10020	118	12183	159	9293	164	13570	164	7762	149	10064	132	6364
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY	14	763	20	917	20	973	20	1009	20	1041	20	1073	20	1106
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	7	0	7	0	6	0	4	0	5	0	5	0	5
-ALL OTHER	0	4249	0	7580	0	7602	0	8162	0	9107	0	9277	0	9977
RESTRICTED	0	283	0	550	0	633	0	342	0	304	0	315	0	328
FEDERAL GRANTS & CONTRACTS	0	394	0	403	0	257	0	265	0	273	0	281	0	289
-TOTAL	128	15716	138	21640	179	18764	184	23352	184	18492	169	21015	152	18069

ASSOCIATE PROGRAMS

Office of Membership and Development (OMD). The Office serves as the focus for fund raising activities of the Institution and oversees the operations of the National and Resident Associate Programs. Plans call for the development of a general fund raising brochure and more direct solicitation from foundation, corporations, and individuals.

Smithsonian Magazine. Expenditures are expected to increase substantially due to continued cost increases associated with publication. Demand should remain strong, and Magazine will continue to operate and produce a surplus for institutional program activities from trust revenues generated through membership and advertising sales.

National Associate Program (SNAP). Continued expansion is forecasted for contributing membership, travel, and lecture and seminar programs.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 11 (1)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
OFFICE OF MEMBERSHIP & DEVELOPMENT														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	12	900	15	943	17	996	19	973	19	850	20	905	20	934
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	8	0	10	0	10	0	11	0	11	0	12	0	12
-BUREAU ACTIVITY	0	100	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	33	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	12	1041	15	953	17	1006	19	984	19	861	20	917	20	946
SMITHSONIAN MAGAZINE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	87	45850	88	50550	90	54075	90	57740	92	61500	92	66000	92	70400
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	87	45850	88	50550	90	54075	90	57740	92	61500	92	66000	92	70400
NATIONAL ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	28	10730	30	11685	32	12430	34	13200	35	14050	36	15025	37	16000
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	32	0	33	0	33	0	33	0	33	0	33	0	33
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	28	10762	30	11718	32	12463	34	13233	35	14083	36	15058	37	16033

Resident Associate Program (SRAP). Plans call for strengthening of performing arts programs, expanding membership and broadening its composition, and developing new program offerings directed to specialized audiences.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 11 (2)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
RESIDENT ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	46	3090	47	3385	50	3530	51	3665	53	3820	54	3965	55	4105
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	9	0	25	0	26	0	25	0	25	0	25	0	25
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	46	3099	47	3410	50	3556	51	3690	53	3845	54	3990	55	4130
ASSOCIATES PROGRAMS--SUMMARY														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	12	900	15	943	17	996	19	973	19	850	20	905	20	934
-PROGRAM & ADMINISTRATIVE	161	59670	165	65620	172	70035	175	74605	180	79370	182	84990	184	90505
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	8	0	10	0	10	0	11	0	11	0	12	0	12
-BUREAU ACTIVITY	0	132	0	33	0	33	0	33	0	33	0	33	0	33
-ALL OTHER	0	42	0	25	0	26	0	25	0	25	0	25	0	25
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS														
-TOTAL	173	60752	180	66631	189	71100	194	75647	199	80289	202	85965	204	91509

BUSINESS MANAGEMENT

Business Management Office/Product Licensing. A re-invigorated Product Licensing program is expected to grow and to generate significant new income for the Institution. Educational toys and other products which will increase public knowledge of Smithsonian collections and activities will be emphasized.

Museum Shops. The Museum Shops plan to renovate several existing shops and to build others. There is an expanded shop in a new location in the National Museum of American History and refurbished shops are planned in the National Museum of Natural History and in the National Air and Space Museum. The renovations are intended to improve customer services and to enhance merchandise presentation. The Museum Shop in the National Museum of African Art will move to the new Quadrangle facility when it is ready. Overall, the Museum Shops will continue to exploit technological advances in retail management and will aim for increasing professionalism in their operations.

Mail Order Division. The Mail Order Division will continue to publish three main catalogues each year: Fall, Spring, and Summer. These may be supplemented by specialized catalogues designed to appeal to particular target markets and by advertising products in selected magazines. List segmentation will continue and will become increasingly refined. The fulfillment facility will likely reach capacity by 1987-1988. Its computer is currently being upgraded to handle the growth in business that is anticipated.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 12 (1)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
BUSINESS MANAGEMENT OFFICE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	5	320	5	340	5	375	5	390	5	400	5	405	5	415
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	320	5	340	5	375	5	390	5	400	5	405	5	415
MUSEUM SHOPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	162	12565	166	13530	170	14500	174	15500	176	16450	180	17300	182	18100
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	162	12565	166	13530	170	14500	174	15500	176	16450	180	17300	182	18100
MAIL ORDER DIVISION														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	48	9095	51	9950	52	12010	53	13310	54	14400	55	15600	56	16800
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	48	9095	51	9950	52	12010	53	13310	54	14400	55	15600	56	16800

Concessions/Food Services. Projections for concessions and food service activity have been combined to reflect the restoration of all restaurant operations to concession in FY 1984. Renovation of the restaurant facility in the American History Building is planned in FY 1984 and will be amortized over a five-year period. A restaurant addition to the National Air and Space Museum to meet public needs is also underway. A concessions manager has been hired to monitor all concession activity, and a new long term concessions contract is expected to be negotiated in FY 1985.

Parking. No changes are foreseen in the operation of Smithsonian parking facilities other than periodic rate increases if necessary.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 12 (2)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
CONCESSIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	1	395	1	150	1	150	1	150	1	150	1	150	1	150
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	1	395	1	150	1	150	1	150	1	150	1	150	1	150
PARKING OPERATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	17	475	17	540	17	560	17	575	17	590	17	610	17	625
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	17	475	17	540	17	560	17	575	17	590	17	610	17	625
BUSINESS MANAGEMENT-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	233	22850	240	24510	245	27595	250	29925	253	31990	258	34065	261	36090
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	233	22850	240	24510	245	27595	250	29925	253	31990	258	34065	261	36090

ADMINISTRATIVE, FINANCIAL AND OTHER SUPPORT SERVICES

Central Management Offices. This planning period sees the arrival of a new Secretary of the Institution. His plans and programs for the Smithsonian will be reflected in subsequent editions of the Prospectus. With regard to ongoing activities, the central management offices will continue to be heavily involved in bringing the Quadrangle project to fruition. These offices also will emphasize the supervision of administrative and support functions to enhance their responsiveness and quality performance. Office automation systems will be extended and integrated to increase inter-office efficiencies. Another concern of central management over the planning period is the strengthening of the Institution's equal opportunity and affirmative action programs. Continued strong attention will be given to legal oversight of and counseling on the Smithsonian's activities and to improvement of financial management and internal control systems. The Office of Management and Budget, Congress, and other organizations will be kept informed of plans, programs, and requirements. Capital improvement, safety, and health programs will be planned, implemented, and monitored for effectiveness. Overall resources expected in FY 1990 for central administration of the Institution amount to \$5,260,000 and 66 staff. Only minor growth in federal and trust fund program support is anticipated largely attributable to the requirements of legal counsel.

Specialized Administrative and Technical Offices. Work of major importance over the planning period includes the implementation of new computer systems for payroll/personnel, bibliographic, collections management, research, and financial management purposes. Implementation of new Federal Acquisition Regulations for government procurement and contracting will continue. Equal opportunity and affirmative action efforts will encourage closer working relationship among hiring units, personnel, and equal opportunity offices and improve the representation of women and minorities in professional and administrative positions. Employment opportunities and program accessibility for disabled persons will be emphasized. The management of benefits programs for employees will be consolidated for improved communications and service. It is expected that changes to the Federal retirement and health insurance programs and the requirements of the Workers' Compensation and unemployment insurance programs will require substantial personnel work. The nitrate film conversion program will be completed. Continued progress will be made in increasing the capacity for archival storage of photographs, applying videodisc technology to the photograph collection, and improving printing capabilities. Information concerning research, exhibitions, and other developments will be provided to the public in informative and interesting ways. The International Exchange Service will continue for the present. Support will be given to operations in new facilities including the Museum Support Center, the Quadrangle, and the Post Office Building. All units will stress internal control procedures. Accounting Service Units will be expanded to help strengthen financial management. Overall resources expected in FY 1990 for specialized administrative and technical services amount to \$18,701,000, and 396 staff. Over the planning period, additional resources are forecast for the implementation of computer systems, mainframe conversion, and office automation. Additional staff and funds are required for increased workloads, internal controls, and support for new facilities.

Facilities Offices. During the planning period, work will continue to make operational the Museum Support Center, the Quadrangle, and, if made available to the Institution the General Post Office Building. New facilities for the support of science activities will be planned, designed, and constructed. The maintenance and upgrading program for the Institution's facilities will be increased in recognition of the size and aging of the physical plan. Energy and communication management programs will be monitored closely to control costs. Security will be enhanced by the addition of new personnel, the modernization of alarms and other devices and equipment, and the installation of an electronic monitoring system fully under Smithsonian control. Other areas of emphasis include the strengthening of the personnel security and health services programs. Overall resources expected in FY 1990 are \$65,945,000 and 1,490 staff. Increased resources represent architectural, engineering, and construction management services in support of an expanded program, the correction of base shortages in the maintenance of the physical plant, and security staffing of the Quadrangle.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 13 (1)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CENTRAL MANAGEMENT OFFICES														
CENTRAL MANAGEMENT OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	40	1888	40	1966	40	1966	40	2015	40	2010	41	2032	41	2041
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	24	2007	23	2144	23	2096	24	2627	24	2727	25	2827	25	3109
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	-1	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	111	0	31	0	29	0	10	0	10	0	8	0	5
RESTRICTED	0	137	1	511	1	612	0	105	0	105	0	105	0	105
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	64	4142	64	4652	64	4703	64	4757	64	4852	66	4972	66	5260
SPECIALIZED ADMIN & TECH OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	214	9891	216	10342	227	10717	238	11446	239	11508	241	11597	242	11680
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	144	5826	148	5792	150	6118	151	6367	151	6588	152	6866	152	6911
-AUXILIARY ACTIVITY	2	80	2	95	2	95	2	100	2	100	2	105	2	110
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	12	0	512	0	512	0	12	0	11	0	0	0	0
RESTRICTED	0	1	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	360	15810	366	16741	379	17442	391	17925	392	18267	395	18568	396	18701
FACILITIES OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	1112	46320	1123	49887	1244	55498	1374	57954	1427	60503	1466	63075	1472	64169
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	12	1191	15	1395	16	1529	15	1569	16	1636	17	1746	17	1806
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	1	60	1	31	1	30	1	61	1	65	1	69	1	70
RESTRICTED	0	17	0	1	0	1	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1125	47508	1139	51314	1261	57058	1390	59584	1444	62204	1484	64890	1490	66045

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1984 AND PROJECTED THROUGH 1990

TABLE 13 (2)

	FY 1984		FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ADMIN, FIN'L & OTHER SUPPORT SVCS														
ADMIN, FIN'L & OTHER SUPPORT SVCS-SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	1366	58099	1379	62195	1511	68181	1652	71415	1706	74081	1748	76704	1755	77890
-PROGRAM & ADMINISTRATIVE	180	9024	186	9331	189	9743	190	10563	191	10951	194	11439	194	11826
-AUXILIARY ACTIVITY	2	80	2	95	2	95	2	100	2	100	2	105	2	110
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	-1	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	1	183	1	574	1	571	1	83	1	86	1	77	1	75
RESTRICTED	0	155	1	512	1	613	0	105	0	105	0	105	0	105
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1549	67540	1569	72707	1704	79203	1845	82266	1900	85323	1945	88430	1952	90006
*Less SI overhead recovery														
-Program and Administrative		-6500		-7000		-7300		-7600		-7900		-8200		-8500

APPENDIX II

SMITHSONIAN OPERATING RESOURCES FY 1975 - FY 1990
IN CONSTANT 1984 DOLLARS

This appendix eliminates inflation from the projected funding levels for FY 1985 through FY 1990 in the Prospectus and compares the resulting real (constant dollar) growth for this period to that experienced in previous years. Chart A displays resources of the Institution in constant 1984 dollars, or current purchasing power. Information for FY 1970, 1975, and 1980 is included for comparative purposes. Table 14 sets forth 1985 and 1990 financial resources by source of funds, in both actual as well as constant 1984 dollars. Federal fund estimates for FY 1985-90 have been discounted in accordance with inflation indices provided in the summer of 1984 by the Office of Management and Budget; and, in a similar fashion, trust fund estimates have been discounted by a factor of 3 percent computed cumulatively, a figure that units were instructed to use when materials were being assembled for the Institution's budget planning reviews. For FY 1970, 1975 and 1980, resources were inflated to 1984 constant dollars based on the Consumer Price Index.

FY 1975 - FY 1985

In constant FY 1984 dollars, real growth from FY 1975 to FY 1985 is expected to amount to some \$106 million, (or 48%), of which \$84 million is attributable to nonappropriated trust funds, and \$30 million to Federal appropriations. Offsetting these increases is a decline in Federal Grant and Contract support of some \$8 million when expressed in constant dollars. The majority of the growth in nonappropriated trust funds (\$84 million) is generated by the Institution's revenue producing activities and results from expanded Associate programs, primarily the Smithsonian magazine, expanded museum shop operations, and new activities including mail order, parking and the direct mail and recording activities of the Smithsonian Press. In addition, over \$1.4 million in real growth during this period occurs from investment income, while gifts and foundation grants are expected to remain virtually unchanged. After adjusting for expenses of the auxiliary and bureau activities, net real income provided from all nonappropriated trust fund sources is anticipated to grow by almost \$13 million.

In Federally funded activities, real growth over this period is primarily associated with the major new facilities, the Museum Support Center, the National Museum of African Art, and also includes new and expanded activities such as the Tropical Research Institute with its custodianship responsibilities resulting from the Panama Canal Treaties, the collections inventory program, information automation, library and archival programs, research support and equipment replacement, installation of a proprietary alarm system, and architectural and engineering services for increased renovation and restoration requirements.

FY 1985 - FY 1990

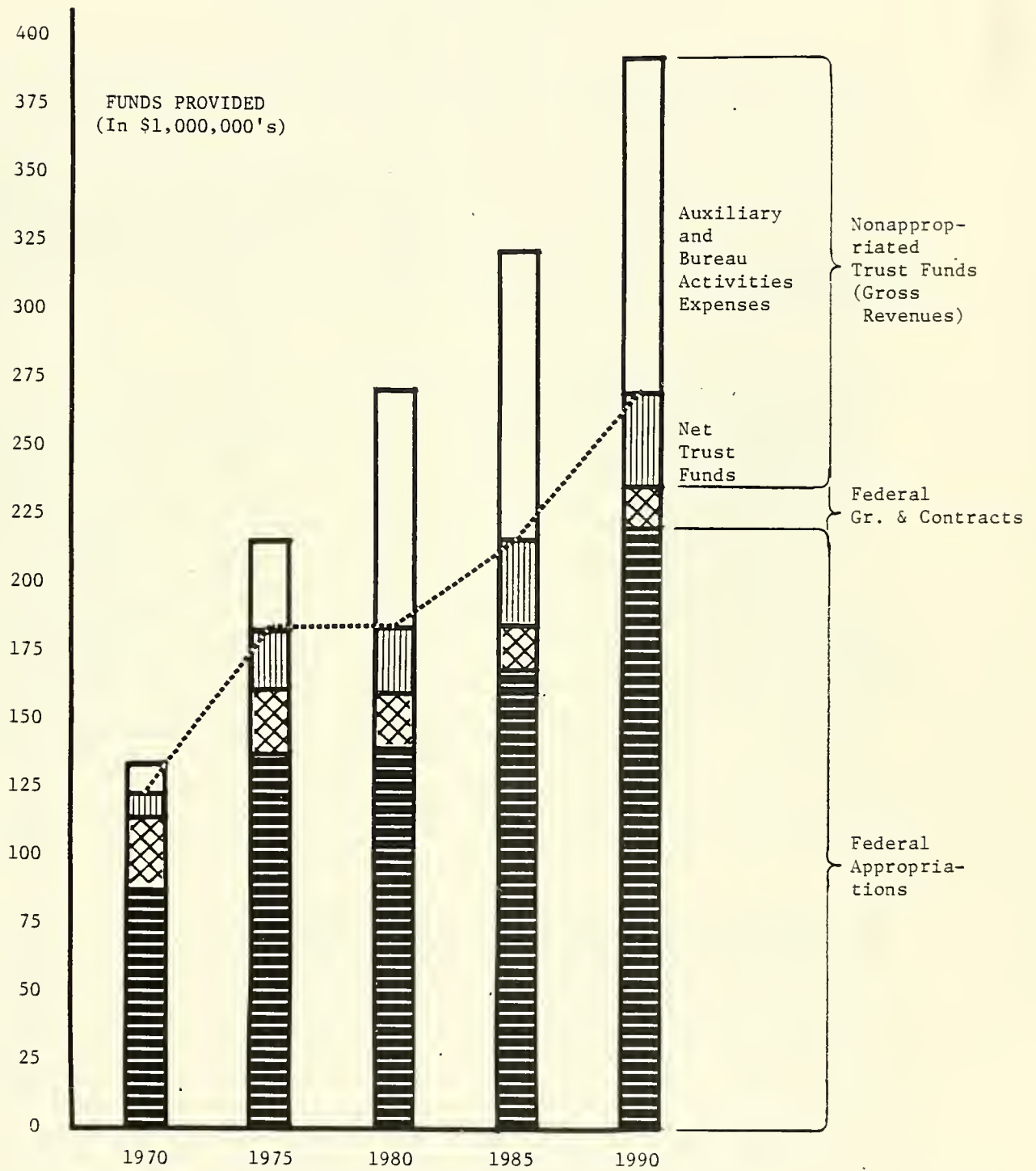
As detailed in earlier sections of the Prospectus, an increase in gross revenues of over \$162 million is projected for the period from FY 1985 - FY 1990. Of this increase, some \$91 million is required to cover inflationary increases in salaries, utilities, rent, supplies, equipment, and other goods, leaving some \$71 million in anticipated real growth. Federal appropriations account for about \$53 million, or 74 percent of the projected constant dollar growth. Much of this growth is associated with operational aspects of the new Quadrangle facility and programmatic activities to be located in the facility including the International Center, the Sackler Gallery and the Museum of African Art. Substantial increases are also projected for research, scientific equipment replacement, conservation, collections management, systems automation, and library needs.

Anticipated real growth in gross revenues of nonappropriated trust funds will amount to over \$19 million, all of which is attributable to auxiliary and bureau activities. After deduction of expenses incurred in generating these revenues, net income expressed in constant dollars will remain virtually level.

Federal grant and contract support, which will increase substantially over much of the period, is anticipated to decline by 1990 in terms of real dollars (\$-1.4 million), reflecting completion of several large contracts projected for the Astrophysical Observatory.

Smithsonian Institution Operating Funds - In Constant 1984 Dollars
Fiscal Years 1970, 1975, 1980, 1985, 1990

Chart A



(In Thousands of Dollars)

TABLE 14

SMITHSONIAN OPERATING FUNDS

Fiscal Years 1985 and 1990 in Actual and Constant 1984 Dollars

	<u>FY 1985</u>		<u>FY 1990</u>	
	<u>Actual</u>	<u>In Con- stant \$'s</u>	<u>Projected</u>	<u>In Con- stant \$'s</u>
<u>FUNDS PROVIDED</u>				
Federal Appropriation - S&E	173,582 ^{1/}	168,003	289,171	221,280
Federal Grants and Contracts	16,445	15,968	17,429	14,606
Nonappropriated Trust Funds:				
Investments	6,844	6,646	8,145	6,826
Gifts and Miscellaneous	10,576	10,269	8,455	7,085
Auxiliary and Bureau Ac- tivities Revenues (Gross)	123,759	120,170	170,480	142,862
Less Related Expenses	(106,490)	(103,402)	(147,129)	(123,294)
Auxiliary and Bureau Ac- tivities Net Revenue	<u>17,269</u>	<u>16,768</u>	<u>23,351</u>	<u>19,568</u>
Total Nonappropriated Trust Funds:				
-Gross	141,179	137,085	187,080	156,773
-Net	34,689	33,683	39,951	33,479
Total Operating Funds Provided:				
-Gross	331,206	321,056	493,680	392,659
-Net	224,716	217,654	346,551	269,365

^{1/} Includes effects of anticipated pay raises in January 1985.

APPENDIX III

EXAMPLES OF COLLECTIONS RELATED RESEARCH

The results of curatorial research on the collections in the Freer Gallery of Art are most visible in exhibitions. However, additional research made available to the public can be found in collections research records, in lectures, and in published papers and books. Specifically, areas of research in Japanese art include an ongoing study of porcelains, the study of the influences of Korean slip-gazed ceramics on Japanese ceramics and on the economics of ceramic production in Edo-period Japan, with special interest in daimyo-descended kilns and Kyoto potteries. Research on late Edo-period drawings including those by Hokusai on Edo-period lacquer, on medieval narrative painting and on artistically decorated fans.

In the areas of Chinese art, research continues on Chinese painting spanning the Sung dynasty (960-1279) through the Ch'ing dynasty (1644-1912) and on calligraphy (an exhibition is planned for 1985 on Chinese Calligraphy). Also, results from recent archaeological discoveries in the People's Republic of China has contributed to new research on similar objects in the Freer.

The Technical Laboratory of the Freer Gallery of Art is renowned for its research activities, some of which evolve out of the ongoing conservation and restoration of objects in the collection. Research includes lead-isotope ratios in Chinese bronzes and colors of the copper-tin-lead alloy system, lead-isotope ratios in Oriental pigments, examination and analysis of Islamic metalwork in the collection for a catalogue of an exhibition scheduled for FY 1985. Also, a study of American pastels and watercolors using infrared photography was recently begun.

Additional technical research included the completion of the survey of pigments on Japanese Ukiyo-e paintings in the Freer; this is now being reviewed for publication. A detailed study of certain unidentified green pigments on these paintings is being continued.

Curators at the National Museum of American Art are researching two groups of works recently acquired by transfer: paintings, drawings, and sculptures by black American artists of the 19th century, formerly in the National Museum of African Art; and approximately 1,500 photographs of contemporary life in America, Europe and the Orient, received from the National Endowment for the Arts and created under their Visual Arts Program. Studies of these objects will continue beyond exhibitions and publications scheduled for 1984 and 1985.

Staff endeavors have been directed also towards works long held in the collection, such as paintings by Alice Pike Barney. Studies of the Museum's collection of over four-hundred miniatures will culminate in a series of exhibitions to be initiated in 1985 and spanning several years. Curators have completed research on more than one-hundred of the Museum's most

outstanding works of sculpture and painting, ranging from the late 18th century to the 1970's. An exhibition featuring these highlights of the permanent collections will tour the country in 1985 to 1987, accompanied by a publication.

At the National Portrait Gallery, research in the general field of caricature in American portraiture is going forward; a number of original caricature drawings and paintings by Miguel Covarrubias have been located and will be shown in the first retrospective of this artist's work. There will be a catalogue with a newly-researched biographical study of the artist. Work is now underway on new art-historical studies of Joseph Wright (late 18th century New Jersey painter), James Earl, Chester Harding, and William Edward West; in each case an exhibition and scholarly catalog is being prepared. Considerable research in the Gallery's new acquisitions is a normal part of the NPG staff's work; special attention this year has been given to the Degas painting of Mary Cassatt, the sculpture of John Frazee, and graphic representations of the leaders of the Confederacy.

At the Cooper-Hewitt Museum, permanent collection items are usually not on view except in the context of temporary exhibitions. Collection research, therefore, frequently supports and relates with the Museum's outstanding and varied schedule of special, thematic shows. In the recent past, for instance, textiles research has been designed around two unprecedented showings of the Cooper-Hewitt's large holdings in the areas of lace and embroidered samplers; a future study of printed fabrics will similarly combine preparatory and technical research with an exhibition product. In the decorative arts department, exhibits will require cataloguing and collections research in the areas of wine manufacture and consumption, marine life forms, modern uses of plastic and other synthetic materials, and traditional iconographical representations of the four continents (i.e., Europe, Asia, Africa, and America).

Additionally, research continues on the drawings of the French architect Gilles-Marie Oppenord, many of which are represented in the collection. This will result in an eventual monograph. The Museum's Masters Degree Program in the history of the decorative arts also presents annual opportunities to plan and execute directed research by graduate students in various areas of the collections. Such work may lead to a thesis, an exhibition, and/or a separate publication.

The National Museum of Natural History, with its vast collections of biological and mineral specimens and other artifacts, is a world leader in collection-oriented research. Most of the numerous research projects carried on by more than one hundred staff scientists involve the study of collections at some point, and many of the projects could not be done without the collections. A small sample of the numerous examples are cited here. In anthropology, some 300 skeletons with significant pathological features are being studied for the medical knowledge they can reveal about the manifestations of disease in skeletons. The results will yield new insights into the history of disease. The Museum's Registry of Tumors in Lower Animals, which has 5,000 specimens of fish, shellfish, and other animals with various types of tumors, is the world's only clearing house for

information on cancerous growths in these animals. The increasing numbers of cancerous tumors being found in fish and shellfish living in chemically polluted waters underscore the importance of this collection.

The unique collection of fossil bird remains is a crucial resource for the ongoing studies of newly found bird fossils on oceanic islands. Without the existing collection, comparisons could not be made, the new finds could not be identified, and evidences for extinct bird faunas on these islands could not be evaluated. Botanists have recently completed major treatises on the begonias of the neotropics and the grasses of southern Brazil. Both studies have great economic importance, and neither could have been done without the Museum's large collection of plant specimens. This herbarium also provided vital specimens of pollen for comparisons with "Yellow Rain" samples from Southeast Asia, conducted with the aid of the electron microscope.

Geologists have been using the recent collections of meteorites from Antarctica to gather data for the science of paleontology. Drill cores from the Nile Delta are being studied to document the recent geological history here and to chart the Delta's erosion, which has increased alarmingly since the construction of the Aswan Dam. This could have dramatic effects on Egyptian agriculture. In paleobiology, microfossils collections are providing a basis for studying the geological history of the Mediterranean Basin.

Staff at the National Air and Space Museum use artifacts as historical evidence to illuminate events, issues, and methods in technological development and scientific research. In the process of restoration of the Northrop N1M Flying Wing, restorers observed that the two halves of the aircraft appeared to be built by different persons. An inquiry of the pilot revealed that the airplane had crash-landed, and one side had been rebuilt from scratch--a historical episode of significance that documents did not cite. A pioneering infrared telescope developed at the California Institute of Technology, now in the astronomical collection of the Museum, was built of epoxy and aluminum. The artifact, complemented by an oral history interview, revealed an important, innovative construction technique that was invented to reduce thermal deformations of the collecting mirror. A recent article in Technology and Culture traced the introduction in the 1930's of flush rivets to reduce frictional drag of aircraft, citing as evidence several airplanes in the NASM collections. These examples are among dozens of unique historical insights that routinely derive from study of the collection. During restoration of aircraft, engines and accessories, the museum supports research on materials and methods of manufacture in order to document aircraft design, fabrication, and the general industrial technology associated with the time.

In geophysical science, museum scientists are comparing hand-held manned space flight photographs of Earth from Gemini and Apollo flights with recent images from the Space Shuttle, attempting to observe changes in surface features such as shifting sand dunes. Museum scientists, working jointly with researchers at SAO and the USGS, are processing images of Jupiter's moon Ganymede, which were taken by the Voyager space craft during its 1979 flyby, to create a geologic map of the entire satellite. These images are part of the collections of the Museums.

In the collections of the National Museum of American History, studies are being conducted in dynamos and motors of the the turn of the century designed by the inventor, Elihu Thompson; the studies are directed at establishing evidence of personal style in the design of these objects. The manufacture and use of American calculating machines are being studied with particular attention to the relationship between developments in mathematical computation and mechanical technology. In addition, computer development and computer controlled automation are being studied, particularly with regard to effects on labor, employment and the quality of the work environment. Also, research is being done on the medical instruments collection, with emphasis on their evolution and use in the treatment of women.

SMITHSONIAN INSTITUTION

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Smithsonian Associates
National Museum Act
Advisory Council
National Museum of African Art
Commission
National Museum of American Art
Commission
National Portrait Gallery
Commission
Smithsonian Council
Woman's Committee of the
Smithsonian Associates

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Office of Accounting and
Financial Services
Office of Grants and Risk
Management
Business Management Office
Communications Division
Mail Order Division
Smithsonian Museum Shops

GENERAL COUNSEL*

Coordinator of PUBLIC INFORMATION*

Office of Congressional Liaison
Office of Public Affairs
Office of Special Events

Director of MEMBERSHIP AND DEVELOPMENT*

Development Office
Smithsonian National Associates
Program
Smithsonian Resident Associate
Program

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National Air and Space Museum
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Assistant Secretary for HISTORY & ART*

Anacostia Neighborhood Museum
Archives of American Art
Center for Asian Art
Freedman Center for the History of Art
Cooper-Hewitt Museum
Hirshhorn Museum and Sculpture
Garden
Joseph Henry Papers
National Museum of African Art
National Museum
National Portrait Gallery
National Museum of American
History
National Portrait Gallery
Office of American Studies

Assistant Secretary for PUBLIC SERVICE*

The International Center
Office of Elementary and Secondary
Education
Office of Folklore Programs
Office of International Activities
Office of International Symposia and
Seminars
Office of Telecommunications
Smithsonian Institution Press
Smithsonian Magazine
Visitors' Center and Associates
Reception Center

Assistant Secretary for MUSEUM PROGRAMS*

Conservation Analytical Laboratory
National Museum Act
Office of Cultural Resources
Office of Horticultural Programs
Office of Museum Programs
Office of the Registrar
Smithsonian Institution Archives
Smithsonian Institution Libraries
Smithsonian Institution Traveling
Exhibition Service

Assistant Secretary for ADMINISTRATION*

Contracts Office
International Exchange Service
Management Analysis Office
Office of Facilities Management
Office of Facilities Security
Office of Design and Construction
Office of Plant Services
Office of Protection Services
Office of Information Resources
Management
Office of Personnel Administration
Office of Printing and Photographic
Services
Office of Programming and Budget
Office of Supply Services
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